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LINEAR PERSPECTIVE.*

NO. II.



THE first subject that awakened my attention to the fact, that the present laws of perspective were not founded on our vision of nature, was a study of the interior of Roslyn Chapel, painted for Joseph Mayer, Esq., of Liverpool.

A most careful and accurate drawing of the interior of this chapel was made by the hand and eye; and no pains were spared, by diligent attention to the bearings of its lines, and the most scrupulous comparisons of its distances and diminutions, to arrive at a perfect outline of its appearance to the eye, from a given point, which outline, when finished, was found to differ most materially from the laws of perspective which should have governed it. Having submitted it to the most careful examination, the following suggestions were elicited:—

The view selected was the one whereby the lines A, fig. 1, went directly from the spectator; or, in other words, perpendicular to the picture; and the planes and lines B were straight before me, or

parallel to the picture, the eye being opposite the point — through which the horizontal line passes. It was found that lines B, beyond the pillars on each side, which ought to have remained parallel with the horizontal and base lines, were seen to incline on each side towards the horizontal line; the inclination being less of lines near, or as they approached the horizontal line, than of those farther off; but the lines B 2, opposite, above and below the eye, had no apparent inclination, they appeared there to be truly horizontal, yet they were portions of the same lines which were inclining towards the horizontal line at the extremes of the picture;—the thought was then first suggested that the inclination of lines B was gradual, consequently convex, and that right-lined perspective was not true.

The same effect was observable in lines A; the one even with the eye was found a right line, but the other lines parallel in nature, and which should have been right lines between the point where they cut the picture, and the point of sight, were found not to be so; those in the immediate vicinity of the line of the eye were not materially altered, but those higher up, instead of having that apparently expanded effect which lines have when drawn by right-lined perspective, were found to bend gradually to and from the eye, as in the outline; in fact, they were necessitated to meet the depressed extremes of lines B. It was then suggested that lines A having passed the eye, would again gradually descend to an opposite vanishing point behind; the opinion was then formed that lines perpendicular to the picture were of the same nature and obeying the same laws as those parallel to the picture, and that the same laws would govern every description of lines as well. In contemplating lines A thus drawn, the important advantage was observed, that they appeared in the picture as passing the eye, as in nature, and not as though they were lines which were continually to expand and ascend, as is the appearance of lines drawn under the present system. With respect to lines B, which should have remained straight and parallel through the picture, the declination on each side, when accurately drawn from the original, appeared natural and pleasing to vision, and the important principle was obtained, long thought of and sought, namely, the gradual diminishing of all size and space as it recedes from the eye; whereas, when horizontal lines are kept parallel through a picture, this principle is violated, and, in fact, the

may soon put this subject into obedience to the present laws used; the lines B will then become straight and parallel through the picture; the two pillars C, C 2 will then become the same height; but though it is affirmed that objects diminish in size as they recede from the eye, it will then not be so, for C 2, though so much farther removed from the eye, will not be diminished, but remain the same height as C; yet an artist disposed to be correct when drawing from the original and applying the feet of a pair of compasses to the extreme top and bottom of column C, and the angle to his eye, and then removing it to the same extremes of C 2, will find the latter much reduced; to give this reduction a distant vanishing point is often assumed by taking the seen inclination of one of the lines, such as the line B 3, till it enters the horizontal line, and the declination of lines B being taken to this point, another difficulty is fallen into; for as the lines B under the present system must remain straight after they have passed the perpendicular to this vanishing point, in this instance the point of sight, it causes the lines still to ascend, or as stated in the first essay, it argues the continued ascension of horizontal lines. Careful consideration of these difficulties allows no escape from a conviction of the convexity of the lines of nature removed from the line of the eye. Establish this and you will find all in harmony—every difficulty will glide away, and the beauty, power, and extent which will be obtained will soon convince the practitioner how satisfactory is the knowledge and practice of truth.

With permission, a few strictures on the system now used, with remarks on the advantages that will be obtained in positions of difficulty and general delineation by the one here offered, will close the subject as far as regards the correspondence in this Journal.

It will be at once conceded that a true representation of nature is a subject of great importance, and many questions arise which require serious consideration—what is the true appearance of nature? can nature be truly represented? and is it truly represented by the system of perspective hitherto practised?

It is much to be regretted that this branch of the Arts is not a subject of more general education. Few, very few, can give a reason for what they see, notwithstanding the constant use of the organ of vision; and although all visible creation is governed by the laws of perspective, yet we venture

FIG. 1.



* With the present essay, a subject was forwarded as promised, demonstrating by figure the inconsistency of right-lined perspective; but as the whole could not be given in the present number, this portion of the article has been omitted, as being less important than the figures introduced.

opposite effect becomes apparent: they appear to expand, are drawn as they are, not as they appear to be.

A few further remarks may be necessary to awaken the unwilling and confirm the waverer. Any one but slightly acquainted with perspective

to affirm no science is more neglected or less thoroughly understood. Even those whose daily avocation requires its constant practice, and who cannot draw a line without reference to the Art, usually content themselves with a knowledge of the point of sight, and a few vanishing points; and

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those who profess a profound acquaintance with the science, base their knowledge on, and take for granted, what is written, believing the ultimatum to have been obtained, which admits of no further investigation or innovation.

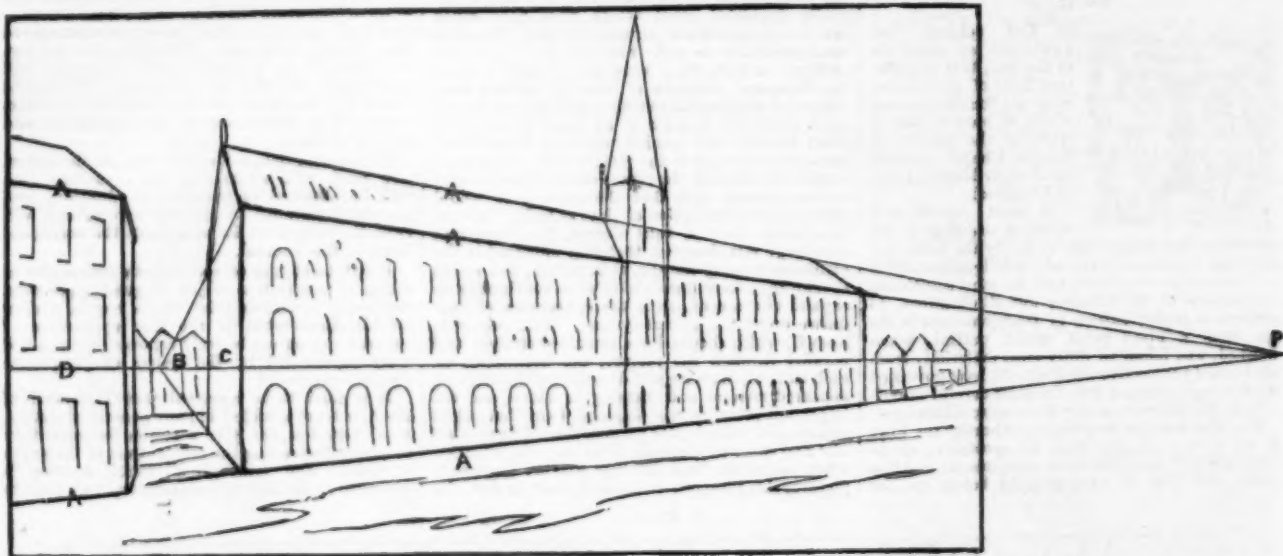
Careful drawing, and a never-ceasing education of the eye to appearances, very early led the writer to evident testimony by vision, that right-lined perspective did not produce an imitation of what the eye saw. Reason suggested, with a power that could not be suppressed, that a picture ought to exhibit nature as the eye sees it. Gradually as the convexity of the lines of nature dawned on the mind, doubts and difficulties vanished; though diffident and unwilling to receive it, truth followed like a phantom, and having established, by thought and by numerous experimental drawings, a system which, day after day and year after year, proves itself correct under ALL circumstances; enlarges the field of Art; relieves the artist in positions of difficulty; and produces on the picture a representation of that which the eye sees as it sees it, and infinitely more agreeable to vision; besides leading the many to see nature correctly,

horizontal or parallel to the picture are kept so until the last line of the building on the left hand side. The view being extensive, and the horizontal lines being preserved, they have appeared to expand so much near the extremes of the picture, that the artist has at length inclined one down as he has seen it in nature. Why was not this line drawn horizontal as the others, seeing that the lines perpendicular to the picture go to the point of sight with the rest?

It is evident that Canaletti, sensible of the extreme into which he was forced, but ignorant of the truth, has abandoned himself to an inclination towards nature's perspective, suggested by reason, but submitted to in a case of difficulty, without connexion with and in direct opposition to the general outlines of the picture and the laws by which those outlines are governed.

Having thus touched upon the doubts and uncertainties of those who have preceded us, and also on the probable reasons which have perpetuated these doubts, a few considerations may be introduced with a view of awakening inquiry into the nature of the truths sought for.

front of a building having half a dozen or a dozen columns; by the use of compasses, as above, or other instruments, he may ascertain for himself the fact that the optic angle from the top and bottom of each column is diminishing as it recedes from the eye, except one or two opposite, which will remain the same size. He is told that the cause of this is the diminishing of ALL size and space as it recedes from the eye, and that there is and can be no exception, for nature and vision is in harmony with itself and with reason, and cannot contradict or neutralise its own, its universal laws. But right-lined perspective takes this extraordinary position, from which it cannot escape; that, admitting it to be a general rule in nature, that objects diminish in size as they recede from the eye, this rule is to be held in abeyance when objects are surveyed, or to be represented in front,—that is parallel to the picture, and that the columns in question do not diminish in size, but are seen and must be represented as they are. Two things are, therefore, held out for serious consideration. Convex perspective is in harmony with itself, with nature, with vision, with reason, and



independently of representing it—it was my undoubted duty to make others acquainted with what I believed would lead to a more truthful delineation of nature, and thus add to the pleasure of my fellow-creatures.

I am quite aware and fully anticipate that a change so radical will produce much opposition. To allay this—still further, to establish my principles, and plead for the propriety and advantages of true perspective, is the object of this essay.

There is evidence of there having been long and continued dissatisfaction with right-lined perspective, in consequence of it not translating nature correctly. In Malton's day, he remarks (Preface): "Notwithstanding what many, who have not a true idea of perspective, imagine, that there is imperfection in it; that the rules prescribed do not always produce a true or pleasing representation of nature."

Numerous reasons, easily accounted for, may have led to the perpetuation of the errors of right-lined perspective. The eye, wherever it moves, is always amongst the straight lines of nature; the smallness, both in length and height, of any buildings erected by man, so that that portion of a line, the whole of which would be convex if carried out to its two extremes, would appear from its being so small a part of so immense a curved line, to be nearly straight. Again, I consider the supposed affinity of perspective to geometry, as one cause of the perpetuation of the errors of the former. Geometry is truth as it exists; perspective is truth as it is seen. Geometry has confused and blinded vision. Knowing the planes and lines of nature to be straight, we have endeavoured to represent them so.

The works of many of the early masters also show their minds to have been wavering, unstable, and without fixed principles. For instance, in Canaletti's picture of the "Canal at Venice," No. 163, in the National Gallery, the buildings extending on each side of the canal are so situated with regard to the eye, as to be composed of lines parallel to and lines perpendicular to the picture. Those which are perpendicular to the picture are terminating in the point of sight; those which are

horizontal or parallel to the picture are kept so until the last line of the building on the left hand side. The view being extensive, and the horizontal lines being preserved, they have appeared to expand so much near the extremes of the picture, that the artist has at length inclined one down as he has seen it in nature. Why was not this line drawn horizontal as the others, seeing that the lines perpendicular to the picture go to the point of sight with the rest?

It is evident that Canaletti, sensible of the extreme into which he was forced, but ignorant of the truth, has abandoned himself to an inclination towards nature's perspective, suggested by reason, but submitted to in a case of difficulty, without connexion with and in direct opposition to the general outlines of the picture and the laws by which those outlines are governed.

Having thus touched upon the doubts and uncertainties of those who have preceded us, and also on the probable reasons which have perpetuated these doubts, a few considerations may be introduced with a view of awakening inquiry into the nature of the truths sought for.

front of a building having half a dozen or a dozen columns; by the use of compasses, as above, or other instruments, he may ascertain for himself the fact that the optic angle from the top and bottom of each column is diminishing as it recedes from the eye, except one or two opposite, which will remain the same size. He is told that the cause of this is the diminishing of ALL size and space as it recedes from the eye, and that there is and can be no exception, for nature and vision is in harmony with itself and with reason, and cannot contradict or neutralise its own, its universal laws. But right-lined perspective takes this extraordinary position, from which it cannot escape; that, admitting it to be a general rule in nature, that objects diminish in size as they recede from the eye, this rule is to be held in abeyance when objects are surveyed, or to be represented in front,—that is parallel to the picture, and that the columns in question do not diminish in size, but are seen and must be represented as they are. Two things are, therefore, held out for serious consideration. Convex perspective is in harmony with itself, with nature, with vision, with reason, and

Is it a principle of vision and perspective that objects diminish in size as they recede from the eye? if so, the space between them diminishes also. Then, can one disposition of the lines and space of nature be affected by a law of vision and another exempt? Are not natural laws universal laws? If inclined lines and lines perpendicular to the picture lessen or diminish so as to meet in a point, why are horizontal lines exempt? It is a solecism to say that the same lines and space when looked at in front preserve their parallelism undiminished, which, when looked at laterally, are said to be diminishing to a point. Right-lined perspective is at variance with itself—contradicts its own terms—asserts, as a principle, the diminishing of objects and space as they recede from the eye; and again asserts that a building, however long, when looked at or drawn in front is not diminishing as it recedes from the eye, but its lines and space remain parallel. The truth of the question is easily ascertained; let any one place himself in the centre, at a moderate distance from, and in front of any tolerably long building, a row of a few houses will suffice, or even a tolerably long room, and having provided a pair of compasses, place the hinge or angle to the eye, and the points or feet to the top and bottom of either end of the building, with the intention of keeping the points following the top and bottom till he gets to the other end; if right-lined perspective be true, the compasses must remain at the same angle, the points following the top and bottom line throughout; instead of this, however, the spectator will find he will have to gradually open the compasses as he approaches the point opposite to himself, when they will remain stationary for a brief space, and then gradually contract to the other end, in fact, describe a curve, the convexity of which will be according to the height of the object, or the nearness or distance of the eye from it.

Particular attention is requested to this, because it is a question that admits of no evasion. Right-lined perspective is either true or false; and the system of convex perspective, as laid down in the Theorems in the first essay, is also either one or the other. Let the spectator stand before and in

with fact; it states, as an universal truth, that all objects and space diminish in appearance as they recede from the eye, and that the rule admits of no exceptions,—and its truth may be established by examination, by fact, by any one who chooses to satisfy himself in this important question. Right-lined perspective states that which by fact and examination is found not to be true; viz., that a building in consequence of being looked at in front is not diminishing as it recedes from the eye on each side, and the reason it is not true, is, because it is a system founded on a false interpretation of the laws of vision as regards the planes and lines of nature; and because it further contradicts a standard principle of perspective and vision, viz., the diminishing of objects as they recede from the eye.

Again, when a science is imperfectly developed, or founded on a false theory, it is sure to find itself in difficulties and restrictions, which form a stumbling-block to the student, and frequently causes its rejection altogether. Artists have often expressed the opinion that perspective was not true, and that they preferred drawing by the eye. Besides the dilemma it has to contend with and explain, of stating that all planes and lines diminish as they recede from the eye, except those which are horizontal or parallel to the picture, which are said to remain as they are, and which convex perspective relieves us from; the inability of proceeding with a picture beyond the perpendicular to any vanishing point, causes the most ridiculous exhibitions, which must be exceedingly painful to professors. To make this familiar to the reader, and he will recognise at once what may be seen every day amongst views of buildings,—let us take any long building, the Town Hall at Brussels, (I quote from memory,) for instance, which from its length is frequently so represented.

Here the long lines of the building, A, are taken to their vanishing point at P. As the eye sees down the side C, the lines at this side of the building are taken down to the other vanishing point, B; this point, B, is said to be the perpendicular to the vanishing point, P, because the planes and lines that tend to it are at right angles or perpendicular

to the planes and lines A. Now, it is found impossible to proceed with lines A, beyond the vanishing point, B, because it argues the continued expansion, ascent and descent of horizontal lines; nevertheless, should any building, as D, be required to fill up the picture, right-lined perspective forces the artist to continue the lines A, ascending and descending. He now finds himself in this difficulty, that the law of perspective which is requiring the contraction of lines A, at one side, the point opposite the eye at B, is requiring its expansion at the other side of the eye. Absurd as this appears, and although a contradiction in principle, because the same law which makes the lines contract at one side the point B, ought to act with the same effect at the other; and he finds they do not ascend and meet in a point, but appear to continue right lines, —nevertheless it is done daily. Now convex perspective would relieve him from this dilemma, requiring no restrictions beyond B the perpendicular to the vanishing point P, but producing lines in harmony with what he sees, and gradually declining them at one side the point B, as at the other.

To prevent these incongruities which artists find so perplexing, they endeavour to avoid them as much as possible, and state that a picture should not include more than 60°, and acknowledge that perspective beyond that will appear distorted; that if you cannot include your building or view within that angle, you must retire further back to obtain it, and that if you cannot retire, you must suppose yourself further back, so as to get the lines more general. Miserable subterfuges of a false science; convex perspective requires no such limits. It affirms the limit of vision and the lines of nature to be 180° horizontally, and 90° vertically, half the universe; and gives the artist the utmost freedom within these bounds. It requires no shuffling of position, but under any circumstances will give what the eye sees from any given point.

These difficulties on the one side, and advantages on the other, require the most deliberate and serious consideration.

It is with satisfaction amounting to a glow of enthusiasm, that I state, after calmly reviewing the various bearings of this important question, that I have discovered and given to the advantage of Art, three important principles, independent of enlarging the field of view, —namely, the convexity of the lines of nature removed from the line of the eye; the determining their length which, before, was considered indefinite; and the gradual diminishing of ALL size and space as they recede from the eye. On these truths I take my stand, convinced of the immense relief and splendid results it will afford to Art, and convinced also that, however rejected for immediate practice, Time will do me justice. For, it is impossible that truths founded on nature can meet with long resistance from those who honestly and candidly seek for them.

WILLIAM GAWIN HERDMAN.

I have received a mass of correspondence since the publication of the first essay, both personally and through the kindness of the editor of the *Art-Journal* in forwarding letters on the subject for my inspection. They principally consist of acquiescence in the truth of the system laid down in the theorems, but doubting its application to Art. However, having established what is truth, its representation may be safely left to time.

As many objections are brought forward in this correspondence, I will make extracts of what is important, and answer them as briefly but as effectually as I can. From an anonymous letter posted at Manchester—

"The same cause which produces the curved appearance of straight lines in nature will operate equally with regard to straight lines in a picture; consequently, it would be an error to represent on a flat surface lines exactly as we see them."

For straight lines in a picture to be so affected by the laws of vision as to curve as they do in nature, they must be as large, and as far removed from the eye; whereas a picture ought to represent truly, a given quantity of nature in any given proportion. For example, it is required that a landscape embrace a subject 70° horizontally and 30° vertically; the curve that is visible in this limited degree, gentle as it is, will be expected, reduced in proportion in a drawing of six or seven inches, or it will neither be like the original, nor escape the usual difficulties of right-lined perspective.

"On any surface except that of a sphere, of which the eye is at the centre, we must not delineate straight lines as we see them; but in such a manner, that when looked at from a certain point, they will present to the eye the same appearance that those in nature do."

If I understand this aright, the following answer will, I think, settle the point. It is admitted that

lines in nature appear curved to the eye. Having selected a given quantity, and ascertained this to be fact, and taking that quantity for representation, can the introduction of a flat glass before the eye alter the disposition of the lines of what is seen? certainly not; the picture then has always been considered a transparent plane, it would therefore be right to trace or represent on this flat glass, otherwise the surface of the picture, lines as they are seen.

"The science of perspective is not founded on any assumption of appearances, but on the experimental fact that rays of light proceed in straight lines."

The first portion of this will I think be duly appreciated; the second I will take on the writer's own terms, and prove the truth of my system of perspective from it. Rays of light or sight proceed in direct lines; therefore, on looking at a building in front containing a number of columns, if two rays proceeding from the eye to the top and bottom of the nearest columns to it, are found gradually approaching each other as they proceed from the eye to the top and bottom of columns receding from it, on each side, the line caused by the contraction of such rays is forming a curved line. That rays of sight proceed in straight lines from the eye demonstrates nothing, except those lines are properly disposed.

From a gentleman at Norwich—

"Whether the doctrine of curved lines be true or false (so far as I can understand it, to me it appears to be true), is not now the question; but whether curved or right-lined perspective be better suited to the purposes of Art."

In positions of difficulty, especially of lateral extent, where right-lined perspective cannot be made available, or produce anything like the appearance of the subject to the eye, it is at least advantageous to have a system to take to, which offers to produce what is seen under any circumstances; but why reject truth at all, after a conviction of its existence, and a knowledge of its laws.

"The field of perfect vision happens to be remarkably small, being obtained only over an angle of 2° 18'." "Over the remainder of the range of vision, the mind is merely conscious of the presence of objects; in so limited a field the eye cannot ascertain whether a line be curved or straight."

It cannot be entertained for a moment that a picture must be reduced to the small angle obtained by perfect vision, neither will it satisfy the public, as some have contended, that that much in a picture ought to be well defined, and the rest made what is called woolly, indistinct; were the eye fixed, these opinions might be entertained; the eye is made to move about in nature, and it sees correctly when it so moves; and why should it not move about on a picture and see things thereon correctly delineated, as it sees them in nature?

As brevity is required, I can only extract further that camera pictures produce "curved lines conformably to what we see in nature." This is satisfactory, nature painting her own pictures curves lines as she sees them, a lesson for Art to imitate.

To conclude, let the advocates of right-lined perspective consider well these difficulties they have to explain, namely: how is it that an individual standing opposite the centre, and at any defined distance from a long building, or row of houses, is informed that if he looks laterally either way the lines and space are diminishing to a point, but if he looks at it in front, the lines and space are said not to diminish but remain parallel. Secondly, how is it that right-lined perspective requires the expansion of lines at one side, the perpendicular, to any vanishing point, vide fig. 2nd, and their contraction at the other, and having well weighed these points, from which, I confess, I see no escape, let them reflect that convex perspective fully relieves them from all difficulty, and brings everything into harmony and truth.

Finally, let not any one imagine or attempt a curvature of lines unwarranted by a perfect knowledge of the system, or of natural appearances. As before observed, the smallness and vicinity of objects to the eye, compared with the vastness of the lines and space of nature as demonstrated in the theorems, causes the curve of what is seen, to be of the most gentle description; but it is so satisfactory, because it is true. The great advantage is however in extent or enlargement of the field of view that may now be attempted; subjects embracing a front and lateral extent of 120° or more, appearing when drawn, to diminish at each side exactly as nature appears to the eye—subjects where a limited position is enforced, such as cloisters of cathedrals—interiors, these with lateral apertures, anything from which the eye cannot retire far, and yet desirable to get considerable extent, especially where it is necessary to draw

beyond the perpendicular to any vanishing point,—all such can be drawn in perfection by the system here demonstrated; whereas, any one has only to make the attempt in such positions, and embrace an angle of 90° or more, and it will soon be apparent that right-lined perspective cannot be proceeded with, and is worse than useless; in fact, it would be better to trust to the eye alone. Distant and general views will be less affected, but will be much improved by their more close resemblance to nature; and vertical lines may still be drawn so, for rising as they do perpendicular to the earth's surface, and of such limited extent, at least when near the eye, the convexity can rarely be seen in any degree to affect their representation.

Fig. 1 gives but a limited idea of the powers of the system, not having been originally selected with a view of displaying it.

An early opportunity will be taken of submitting some subjects to public examination, demonstrating the system of convex perspective to any extreme degree that may be required of it, accompanied by diagrams showing the nature of the system and the mode of its application, which is at once easy, clear, and true.

W. G. H.

[We have received numerous communications on the subject of Mr. Herdman's system of perspective, some of which we have forwarded to him, that he may have the opportunity of replying, and others we now print *verbatim*. This must close the matter so far as the *Art-Journal* is concerned. In admitting Mr. Herdman's theory into our columns, we felt it due to his long experience as an artist, and to his capabilities, to open our pages to the exposition of a subject so important to artists of all classes, without in any degree committing ourselves, or otherwise, to the accuracy of his views. But here our duty terminates.—ED. A.-J.]

SIR,—My attention has been drawn to the opening article of your September number, in which the essayist, Mr. W. G. Herdman, of Liverpool, proposes the attainment of greater accuracy in the perspective delineation of objects as "they are in nature."

Highly should I appreciate any effort that successfully contributed to so important an object; but I have risen from a careful perusal of the article somewhat in a state of alarm for the safety of that venerable structure on whose stability perspective has hitherto so confidently reposed, viz., the pure and rigid geometry of the Greeks; and, feeling the views there put forth to be nothing less than an assault on the first principles of abstract science, I cannot forbear drawing your attention to an innovation that, in the present state of Art, I certainly never expected would have been made.

The points on which I can yield an acquiescence to the views of the essayist are so few, that I shall gladly avail myself of every opportunity of coinciding that may present itself, while I follow him in a consideration of "the laws which govern the most extended planes and lines of nature according to vision," and which belong to the abstract principles of the science rather than to that portion of them that unite to form the gems of Art.

As your contributor has enunciated his views in the form of Theorems containing distinct propositions, it will perhaps be the most convenient plan if I run through them in their order, keeping in view, (where the occasion requires,) the illustrations given in the introduction.

THEOREM I. "A plane is an even surface." I would prefer stating that a plane is a surface to which a straight line being applied in any direction, it will coincide with the surface throughout its whole extent. I insert this rigid definition merely for the sake of affording a standard of comparison, defining the nature of the planes of comparison, defining the nature of the planes of comparison, defining the nature of the planes of comparison. I will bear in mind "that we are declaring the laws of appearances" of lines and planes of a given direction; I am well content "to consider these lines and planes as being of the utmost extent," therefore to avoid any doubt on this point, I will at once say their extent is infinite.

THEOREM II. "A plane passing through the eye becomes a right line, called a vanishing plane; say, rather, called a vanishing line of the picture. I think this slight amendment is merely a correction of the press, and I embrace the proposition as orthodox, sound and fundamental.

THEOREM III. "A plane parallel to its vanishing plane is convex in appearance. Its convexity increases in proportion to its distance from its vanishing plane to 90° or the arc of a circle, and it terminates in its vanishing plane."

A plane convex? Its convexity increases? No! By all the geometry of the Greeks arrayed against all the speculations of the moderns, it does NOT! and if the essayist, to make good his assertion, refuses (as I think he does) to refer the question to abstract principles, and appeals to the sense of optics, let us examine the allegations in support of a theorem, that scatters to the wind all preconceived notions on the subject. It is here that his introductory illustration of the stratum of clouds near the sea-horizon comes in most opportunely as a case in point. But is it really so? Is the stratum of clouds that he is contemplating *really* parallel to his horizontal plane? Or, more rigidly still, is it a "streak" *really* parallel to the circumference of the horizon? No! by all the evidence of the senses—no! Your contributor has been perplexed by the difficulty of Archimedes, and has evidently felt the want of an airy fulcrum, from which he could examine the actual form of the clouds whose accidental positions corroborated his fancy. If his stratum of clouds had been a line, or zone, parallel to his horizontal plane, it would have appeared of the same height or distance from his horizon all around the whole 360° of the horizontal circle; but we are told the stratum was high in the centre, dying into the horizon at 90° on either side; and we want the evidence for the assumption that this zone or stratum was parallel to the horizontal plane. From abstract principles we are sure it was *not*: parallel to the earth's surface it may have been, but your correspondent must bear in mind, that having "quitted earth and launched into the skies," he is seizing hold of the great celestial circles of the astronomer, that offer but few points of comparison with the relatively puny horizontal plane, which (if his eye be five feet above the ocean,) is in point of fact, limited to a circle whose radius is 14,400 feet; or two and three quarter miles; but I admit that the horizontal plane, like all others, may be supposed to be indefinitely extended, and a great circle of the celestial sphere which is *always* parallel to the earth's surface, may have every varying degree of inclination to a local horizontal plane.

Again, let us endeavour to lighten the mystery by the brilliant coruscations of the "Aurora Borealis;" this will, at all events, *illuminate* the subject.

I willingly concede that its rays shooting up from the horizon *may* (particularly when "selected") radiate to, converge, and vanish in the zenith of the spectator:—but what then? Are these rays to be called "vertical lines rising from any point of the earth's visible surface!" that your correspondent would have us to infer vanish universally in the zenith? By no means. They are arcs of great celestial circles, and if they pass through the zenith, they are *therefore* perpendicular to the horizontal plane, but they are *parallel*, and *not* perpendicular, to the earth's surface. I am afraid this assertion will appear almost a paradox to your correspondent; but it is strictly true, and the point here involved is the fountain head of all the confusion on the subject. Strange, that he should call on us to agree that *lines vertical* to the earth's surface vanish in the zenith, *because* some *circular arcs parallel* to that surface do so! How closely allied is the sublime to the ridiculous! We have entangled ourselves among the mighty abstractions of the astronomical sphere, and the result is confusion of ideas—happy if we escape confusion of language! The streaks of the Aurora may vanish in a point a hundred miles above us, and, if continued, would vanish in the Nadir too;—not a hundred miles beneath us, but a hundred miles above New Zealand;—an instance of exception to Theorem 8, the eye being in this case 4000 miles removed from the centre of the two vanishing points.

The illustration of the sunbeams through the clouds I forbear to remark on; they are lines arising so far beyond the limits of linear perspective that it would merely be an unsatisfactory investigation, and to admit the appearances described, is not to admit that straight lines appear curved.

But I think I can see some common ground from which to attack the extraordinary position that vertical lines rising from any point of the earth's surface radiate to the zenith in appearance; for, having the admission that lines actually parallel appear to converge to their vanishing point, I have strong hopes it will likewise be conceded that lines which *actually*, and, in *fact*, intersect in one point, will, in their representation, vanish in the representative position of that point. I think there will be no escaping from this fact; and the result will be, that lines vertical to the surface of the earth have their vanishing point, not in the zenith of heaven, but in the mysterious abyss of central earth, 4000 miles beneath us; to that they all tend, and *there* they must vanish! I should not, Sir, have carried my researches to so great a depth had

not your correspondent contended for the consideration of the laws in their ultimate bearing, investigating the appearance of planes and lines to their remotest extent; and as I did not object even to their infinity, I was bound to press them to their infinite consequences. Viewed in any other light, the assertion that vertical lines vanish beneath us would be almost a caricature of truth; it is, of course, practically inappreciable; it is merely the extreme point of truth advanced as a guard against the extreme point of error.

I should mention (what I believe has throughout been taken for granted), that I am always supposing the plane of the picture to be a vertical plane.

Having shown that the illustrations brought forward by the essayist to establish his point fail in their appliance, I do not feel called upon to illustrate the geometry of the ancients, which has stood so long, and will, I doubt not, survive this modern rebellion.

The fact will still remain, that straight lines in nature are represented on the plane of a picture by straight lines; in opposition to your essayist, who says, "they are *curves* having two vanishing points."

The remaining propositions I am precluded from entering upon by my denial of this Theorem 3, because they are in some degree dependent on it. I will briefly remark, that to THEOREM IV. "*A line is the intersection of two planes.*" I would add, as applicable to an observation that I will make a little further on, that *the intersection of a plane and sphere is a circle.*

To Theorems 11 and 12 I cordially assent, viz., THEOREM XI. "*Lines which are parallel to each other terminate in their vanishing point.*"

THEOREM XII. "*The vanishing points of any lines are in the vanishing line of the plane they are in.*"

The large extent of vision—180°, is, I assume, placed before us as the theoretical limit of Mr. Herdman's system, and as illustrating an extreme case; in which view it is unexceptionable.

There remains one point of interesting inquiry, How has the illusion arisen? It has been beautifully said, "There is no error so crooked, but it hath in it some lines of truth," and "there is truth in the wildest scheme that imaginative heat hath engendered." So this scheme, wild in its conception, mingling the circles of the terrestrial and celestial spheres with the playful lines of local perspective, may have in it some line of truth, which I should like to lay hold of before it reaches its vanishing point and disappears.

The distinctive features of this new school are, that the lines have two vanishing points, and are *curved*. There is one particular case of lines parallel to the picture and parallel to each other, which, theoretically, in the old system, have no vanishing point, yet, in appearance, approach each other and seem to belie the theory on which they are drawn. Your correspondent has, I think, seized on this case, and converted it into the foundation stone of a new system. If lines parallel to the earth's surface, as the top and bottom lines of a long wall indefinitely extended, be at the same time parallel to the plane of the picture, they will appear to converge to a point on either side; and theoretical perspective would direct them to be drawn parallel! Why is this? and where is the fault? It does not arise from any want of generality in the system or inapplicability to nature; but when you approach the verge of the horizon, the conditions of the problem change; the earth, instead of being a plane, becomes a sphere, or rather its spherical properties come into play, and it is no longer perspective applied to *right lines*, but perspective applied to *circles*—bending round the earth, they vanish beneath the horizon, and under the form of a circle they hold their allegiance to the recognised laws of perspective, which in this case modify the line. But long lines parallel to the picture rarely occur; and if in nature they should extend to two miles in length, the variation of curvature would hardly be sensible to a microscope, when transferred to the canvas of the painter.

This case illustrates the modification of law when two systems of different natures meet, viz., spherical geometry and plane perspective. It is another instance of adaptation which nature often displays, and with which Art has often been made familiar.

Having made perspective drawings from the dimensions of buildings in feet and inches, viewed from an assumed point on the plan, I cannot join in the expression of dissatisfaction made by your correspondent, as I have placed myself on the identical point of view, and there made an examination, without detecting a discrepancy between Nature and Art.

That the perspective appearance of a fine geometrical elevation is often unsatisfactory, is well known, and in a great extent arises from the dif-

ferent appearance which an elevated cornice presents in geometrical and perspective elevation; some writers have pointed it out with a view to its remedy, but like many other truths, it is more frequently known than acted on.

I place these remarks at your service in case you should have sufficient space in your November number to give them insertion; and before I conclude, permit me to thank you for the treat you have afforded us this month by your copious illustrations of the Birmingham Exposition of Manufactures, which you have rendered familiar to many not able to visit the exhibition.

GEORGE HERALD.

CARLISLE, Oct. 6.

SIR,—Permit me to make a few remarks upon the article "Linear Perspective" of your last number. As the author of that essay offers it with a view of awakening inquiry into the subject, and as that subject is one of too much importance to a great number of your readers for an error thereupon to remain uncorrected in your valuable Journal, the following observations will not I think be deemed obtrusive or unnecessary. The peculiarity of the writer's views will be found almost entirely developed in the following extracted portion of his article. He says he has "formed the opinion that the most accurately sketched outlines made from architecture by the hand and eye only, invariably differ from the laws of perspective as at present taught; also, that after adopting the method of raising a superstructure of outlines from a ground-plan, by the application of the most approved theorems—on comparing this with the original structure and submitting it to a most careful examination by the eye, its extremes appear invariably more expanded, exactly in proportion as the outline extended from its centre or point of sight. The effect of numerous comparisons of this nature led first to a consideration of the laws of perspective as at present taught; and secondly, to a series of examinations of this phenomena as offered by nature, with a view of eliciting a system more consonant with its appearances. The result has been the conviction that right-lined perspective as at present taught and used, is *not* the truth, and cannot be sustained, not being in harmony with the law of nature, of reason, or of vision."

Whilst admitting the general truth of his observations, afterwards made, relative to the planes and lines in nature, both horizontal and vertical, which observations are valuable, and evince considerable acuteness of thought—whilst admitting that lines parallel to the horizon are portions of circles, and 180° in length, and that they vanish into the horizon in two points, I yet unhesitatingly deny the truth of his inference—that, as they are not so delineated on the perspective plane, or plane of the picture, when drawn according to the system of perspective as at present taught, that that system is false. Though I admit that these lines all vanish in nature, in the manner he describes, I deny that they should be so represented in a picture. He has overlooked the important fact, that the lines in the picture forming the representation of architectural or other objects, are *subject to the same laws of vision as the lines of their originals in nature*; and that it is not pretended by the advocates of the science, that such delineations of objects on the plane of the picture, correctly represent those objects to the eye of the spectator, but when that eye is placed in the same relative position occupied by the original spectator or supposed spectator, that is to say, in the point of sight, at the true angles of distance. This condition granted, it is easily proved to be correct; not approximating towards correctness, as supposed by some, who consider perspective as an imperfect science, but correct *absolutely*.

This condition is an essential one, whether in parallel or oblique perspective; and it is at the same time a natural and reasonable one; without such a condition no system of perspective could be framed. It is, moreover, to be remarked, that we must have only *one* point; an object could not be so drawn on the perspective plane that it could be correctly seen from two points—the idea involves an absurdity; now the system that would, on a plane or flat picture, represent a building, parallel to the picture, in the manner this writer describes, would require, that in viewing the picture, the eye of the spectator should be at the same time opposite every point of it, which is an impossibility.

If the writer, in compliance with this condition, will place his eye opposite the centre of a picture containing a long architectural façade (drawn according to the rules of parallel perspective), and at the point making the true angle of distance, which is the only point at which such a picture should be viewed, he will see that the line of the

summit or roof, though drawn parallel to the horizon in the picture, will not appear so, but will decline towards the horizon in the way he describes it in reference to nature; in other words, the building, at the extreme angles, will appear lower, and the whole range of the elevation will diminish in height each way, towards the extremities, in proportion as they recede from the centre; and this from the cause I have named, by the operation of which, he will see the extremity of the building in the picture at a less angle than the centre; just as the original spectator or supposed spectator saw those parts in nature; inasmuch as the visual rays from the various parts in the picture, to the spectator's eye, bear the same proportions to each other respectively, as those from the original in nature. To repeat, in reference to the façade, what I expressed before—the lines and planes of the building, obtained and drawn upon the picture by the rule of perspective, are still subject to the laws of vision; and, though they are not delineated on the picture as they appeared in nature, yet by this second operation of the visual law, they will be delineated upon the retina of the spectator's eye, with the same truth that they would have been had he viewed them in nature. This is the end and design of the science of perspective, and this end is accomplished.

I have all along supposed the point of sight, and what is termed the centre of the picture, to be literally in the centre; but they may, without impropriety, be placed otherwise. In fact, it matters not where they are, as regards ultimate truth of representation, so long as the conditions I have laid down are observed; artists sometimes place the centre at one end of the picture, and a picture so arranged, to be seen correctly, must be viewed at a point opposite the end: the centre may be outside the picture, but the eye that would view that picture correctly, must be outside of it also, that is to say, opposite a point outside of it. The eye that views any picture truly, must be on the horizontal line of that picture, and hence the importance attached by artists to "the line of sight" in exhibitions.

The writer of the article in question has entirely forgotten the unavoidable defect, or geometrical unfitness, if I may so term it, of the perspective medium or picture, which, by convenience at least, is required to be a flat or plain surface; though it is from that defect arises the want of harmony between the pictorial representation in itself, and the true appearance of what is seen in nature; and that seeming "impossibility of according the theorems of perspective with reason, and the visible truths with which we are surrounded."

A perspective medium could be so formed as to be free from these defects, and if a building must be drawn upon the picture according to the true appearance of what is seen, such picture in order to convey a correct idea of the building to the eye, would have to be of that description, that is to say, it should be, or coincide with, the concave surface of a sphere, the centre of which is the point of sight, at the proper angle of distance.

With a perspective medium of such form, it is evident, no further operation of the laws of optics could take place, in the way of modifying the image conveyed to the eye, as in the case of the flat one, the eye being at the same distance from every possible point in it.

The dissatisfaction complained of as being suffered by many artists from the requirements of the present system of perspective, arises, I suspect, from their not studying its theory, and thoroughly acquainting themselves with the mathematical principle on which the rules are founded. I have been led to the opinion from a long and intimate connexion with artists, that but few of the profession give it as a science, that attention which its importance to truthful delineation demands.

SAMUEL HUGGINS.

LIVERPOOL.

SIR,—Mr. Herdman, in his article on "Linear Perspective," in your September number, assumes for facts what are not facts. His reasoning upon them therefore falls to the ground. It is not a fact that "the most accurately sketched outlines, made by hand and eye alone, invariably differ from the laws of perspective." They invariably coincide. Nor is it a fact that when a superstructure of outlines is raised from a ground plan, according to the most approved theorems, its extremes, when compared with the original structure, invariably appear more expanded. Both these assertions are absolutely without the smallest foundation. The intelligent reader will perceive in a moment, that Mr. Herdman, not understanding that his eye must be placed, in relation to his drawing, precisely as it was in relation to the original, has been looking at his picture from a wrong point of view. Unaware

that he himself, by so looking at it, was breaking a very fundamental requirement of perspective, he pronounces, I must say presumptuously, that "right-lined perspective is not the truth," and that "it cannot be sustained, not being in harmony with nature, reason, or vision;" and he forthwith sets about inventing a new system, which, he says, "every right mind will, of necessity, admit to be founded in nature."

Again, Mr. Herdman asserts that lines actually straight will, in a variety of cases, which he gives, appear "convex,—curved." Impossible! "More convex," he continues, "in proportion to their distance from the line of the eye." Worse and worse! He instances parallel horizontal strata of clouds, perpendicular streamers of the Aurora Borealis, and oblique rays of the sun. Granting, what, however, is not,—perhaps, cannot be, proved, that his cloudy strata are parallel and horizontal for an indefinite length, and that his streamers do all rise perpendicularly and extend to the zenith, not one of them, if a straight line in fact, becomes a curved line in appearance; nor do the rays of the sun, which are known to be straight lines, ever become visual curves, any more than the others; in both cases, it being understood, that neither the curvature of the earth, the unequal refraction of the atmosphere, nor other disturbing causes, be taken into consideration; but that the question is, whether lines granted to be straight, become visually curved, to whatever limits they are extended? This proposition I deny in toto. Pull out your "tightened cord," Mr. Herdman; by it test all those horizontal lines you mistakingly call convex and curved, and you will find them as straight as the horizon, which you allow is so. By your "tightened cord" try also those Aurora streamers which you mistakingly call more convex to the edge of the horizon, and you will find them as straight as those "nearest the eye," which you allow appear straight. It is all a mistake: there is no truth in it—they are straight, every one of them; convergence there is, but no curvature, they are all straight, seen by the eye, as well as in fact. I repeat, if you cannot believe me, take out your cord and see for yourself.

I will here suggest to Mr. Herdman, (although it is rather anticipating what I purpose afterwards introducing,) to consider the whole of visible space as the concave surface of a sphere, of which his eye is the centre. In this perfectly just mode of considering the phenomena of visibles, every great circle of the sphere will appear to the eye as a straight line continually produced until it returns into itself. Indeed, Mr. Herdman allows this to be a fact, in the case of the horizon. The curvature is not perceived by the eye, because the eye is in the plane of the great circle. The same holds in whatever direction such great circle traverses the sphere of vision. Thus an iron hoop, the eye being placed in its centre, will appear a straight line, whether the hoop be held vertically, horizontally, or obliquely. Remove the eye from the plane of the hoop and you immediately perceive its curvature. Now, a straight line is visually a portion of such great circle: this is manifest from the consideration that the circle itself is visually a straight line, and the proof that a line, straight in fact, can never become curved in appearance consists in this—that whereas you may remove your eye out of the plane of a circle or hoop and detect its curvature, you can never remove your eye out of the plane of a straight line. To your "tightened cord" again, Mr. Herdman. Hold it however you will—upright, level, sideways—you can never get out of its plane: it is straight every way.

It were, surely, almost superfluous to go further. The facts failing, the reasoning fails, and the new system explodes, falls to the ground, the "baseless fabric of a vision."

In charity, however, to Mr. Herdman, I will point out to him one fact which he has totally overlooked; but which, if duly considered, would, I feel quite sure, have prevented him from having committed himself in the manner he has done.

First, let us consider the rationale of a picture, as being the transference on to a plane surface of some portion of the whole of actual visible space. A common and very just mode of illustration is presented, by considering a plate of glass placed vertically between the eye and the objects to be represented, and by imagining the lines, boundaries, &c. of these objects, as they travel in direct course to the immovable eye, to be stamped, fixed, daguerrotyped on the glass, as they pass through it. This would necessarily give a correct drawing, because all the marks on the glass would be identical, coincident, with the objects themselves, as seen from the eye; and this, whether the subject introduced was small, or of the largest possible extent. This glass tracing, transferred to a sheet of paper, or canvas, gives the foundation of a cor-

rect picture; that is, correct when seen from the point agreed upon, not otherwise. Now, whereas it is very difficult indeed, practically to execute this glass tracing, Perspective, a friend in need, steps in, and tells us how to do it with the greatest ease. The mathematician makes a geometrical problem of it, and gives us the results.

But Mr. Herdman rejects the demonstrations of the mathematician as not in accordance with the laws of appearances, denounces his suppositions and theorems as based on abstract principles alone. What?—Abstract principles? Are the form, magnitude, position, distance of solid bodies, or visible surfaces, abstract principles? pure suppositions? What? Laws of appearances? Given, the dimensions of a building, its position with regard to the eye, its distance therefrom:—Required, how to project the angular space occupied by the building and its various parts, upon a given plane surface, so that similar angles shall be made at the eye, in the one case as well as the other:—What has the performance of this problem to do with the laws of appearances, or the fancied superior observation of one man above that of another? Nothing whatever. So little has observation to do with it, that the celebrated Dr. Nicholas Saunderson, Professor of Mathematics in the University of Cambridge, could and did understand and perform the problems of perspective and the projection of the sphere, although blind from the first year of his existence.

Not, therefore, in working the problem, but when, being performed, its results become objects of sight, subjected to the contemplation of the eye, then and then only do the laws of appearances come into requisition; and this is the consideration, the fact, that Mr. Herdman has totally overlooked. Once place your picture, in due position, before the eye of the spectator, and the picture becomes itself, at once, by that act, necessarily, subjected to all the "laws of appearances," exactly in the same manner and degree as the objects themselves. Taking the case where the plane of the objects themselves is parallel to the plane of the picture, if lines actually parallel in the objects visually converge, as undoubtedly they do (though not in curves), and if the angle embraced be so large as to render this convergence distinctly perceptible and recognisable, so will also the corresponding lines, drawn actually parallel on the picture, become when viewed from their corresponding point of sight, also visually convergent, and their convergence become distinctly perceptible and recognisable, and in the same degree, and from the same cause; the angle embraced by the picture, as an object of sight, being exactly the same as that of the objects themselves. Mathematically speaking, the cases are identical, the dimensions merely being smaller. This consideration, simple and obvious as one would have thought it, Mr. Herdman has totally overlooked.

There remain many interesting considerations, connected with this subject, but time and space at present warn me that I must bid Mr. Herdman good bye. I do so with entire good humour. There is a chivalrous nobility even in his very rashness, which proves him to be nobly zealous in the pursuit and advocacy of what he esteems the truth. This very feeling will, I believe, lead him as nobly to own himself mistaken when he becomes convinced of it; and there is a frankness in the avowal of his name, which I shall at once imitate.

WILLIAM DOBO.

CARLISLE, October 10.

THE GREAT WATERLOO MEDAL.

In the year 1819, his Majesty King George IV., then Prince Regent, conceived the idea of commemorating the important victory of Waterloo, by causing a medal to be engraved, which should, as a work of high Art in itself, illustrate its attainment during his reign; and for surpassing magnitude, become to future ages an enduring type of the great event.

As a matter of routine, the members of the Royal Academy were invited to offer designs for the medal. After several consultations among themselves, it was decided that Flaxman alone should undertake the Royal Commission, and prepare the sketch; all the other Academicians wisely abstaining from competition with their accomplished member.

Mr. Pistrucci had then but recently arrived in this country, and been appointed principal engraver at the Royal Mint. His fame, as a sculptor of gems, had preceded him in England. Mr. Payne Knight—the most learned virtuoso in this class of Art at that time living—attributed an exquisite example of his skill to the best epoch of Greek Art; and the Baron Denon, keeper of the Imperial Museum

of Antiquities of Paris, &c. &c., classed therein a gem from Mr. Pistrucci's hand, as one of the finest antiques of the Augustan period.

Educated as an artist from his youth in the intense study of the great examples of ancient Art existing in Rome, and received as a distinguished member of the Academy of St. Luke, Mr. Pistrucci, from his previously acquired fame, and in proud reliance on his own talent, at once refused, when applied to, to execute a medal from any other design than his own. The design made by Flaxman, beautiful as it undoubtedly was, became cancelled; and, in twenty-four hours after the refusal, one was prepared in wax, and submitted to the Prince Regent, by the principal engraver of the Royal Mint. This model was instantly honoured by the fullest and most flattering approbation of Royalty, and Mr. Pistrucci was commissioned forthwith to engrave the dies for the Great Waterloo Medal, from the design he had submitted to the Prince Regent.

As soon as the Treasury formalities were perfected, forming the contract for the undertaking, it became of the first importance to secure blocks of steel of the utmost perfectibility, on which to engrave the two sides of the medal. Some idea of the difficulty may be formed, from the fact that each matrix weighs twenty pounds; this unusual weight required also the invention of new mechanical means for applying the graver to the mass of metal. All difficulties were finally overcome, and a couple of blocks of steel chosen out of twenty that were prepared for the purpose.

At this time Lord Maryborough was Master of the Mint, and as Mr. Pistrucci had the duty of making the dies for the coinage, the work on the medal advanced but slowly, from these continued interruptions. Lord Maryborough was superseded in his office by Mr. Horries, and during the control of the latter over the Royal Mint, the principle was promulgated that no foreigner could legally hold the appointment of principal engraver. With each successive change of the ministry the master-ship of the Mint changed hands; and without entering into the history of the variations of management, and the internal disputes engendered thereby in the establishment, it is sufficient to say that Mr. Pistrucci was finally displaced as principal engraver, but was continued in the service as principal medallist. All these intrigues and difficulties renewed with every change of administration, and frustrating the progress of the medal, were terminated by Mr. Pistrucci abandoning the official residence on Tower Hill, and removing to a cottage at Old Windsor, where, in quiet retirement, he at length completed the pair of dies for the great medal on the first of January in the present year.

Before entering upon its artistic qualities, it is necessary to say that the medal when struck, will be five and a half inches in diameter. No medal of this important dimension has hitherto been perfected; the two dies among the so-called Napoleon medals by Andrieu, although of similar extent of surface, were only formed for striking separate medallions in soft metal. It will be recollected besides, that these contained in one the profile bust of Napoleon, and the other the double bust of himself and the Empress Maria Louisa. In elaboration of subject there exists not the remotest comparison with the work of the Waterloo medal. Mr. Pistrucci's dies contain full sixty figures, resembling, somewhat in scale of proportion, the St. George on the crown piece, of his execution: the border, on the reverse side, is in unusually high relief, and the entire performance has been achieved by engraving alone, without punching whatever, in any part. The time which has been employed in this immense labour is calculated to have amounted together to twelve years of continuous working, at Mr. Pistrucci's rate, of eighteen hours daily out of the twenty-four, being an extent of application which the veteran engraver continues to exercise, unless interrupted by indisposition, in the enthusiastic pursuit of his art at the present day. The labour on the pair of dies contains alone as much work as any previous medallist has ever executed in a life-time.

The intention of his Majesty King George IV. was to have the medal struck in gold, and one of each of those presented to the allied Sovereigns who contributed to the downfall of Napoleon, and one also to be presented to each of the two great commanders, Wellington and Blücher, whose military prowess consummated the glorious event. Some others were intended to be struck in silver for presents to lesser dignities, as well as some in bronze. Those of the two latter classes were to be purchasable by the public.

The dies have now been completed ten months, a copy in soft metal has been placed before the Lords of the Treasury, but difficulties of routine

and ceremony have, to this moment, retarded any procedure to harden the dies and strike the medal; it is only necessary merely to allude to this, as it will probably come before the public officially in a short time.

The subject of both sides of the medal is treated allegorically, excepting the central part of the obverse, which represents the busts of the four allied sovereigns seen grouped together in profile. Around this group of actual portraits, the figures constitute an allegorical mythological allusion to the treaty of peace which was consequent upon the great triumph on the field of battle. The summit of the surrounding groupings presents Apollo in his car restoring the day; the rainbow-sephyr and Iris follow the chariot of the sun in succession, but the sephyr is tending towards the earth, and scattering flowers as the emblem of peace and tranquillity. On the opposite side, the car of Apollo is seen closely approaching the constellation Gemini, personified as usual by a pair of graceful youths, indicating the month in which the great contest took place. Castor and Pollux, each armed with spears, are intended to elucidate the apotheosis of Wellington and Blücher. Themis, the goddess of Justice appears on earth, as in the golden age. This figure is placed in front of the profile busts of the sovereigns to show that Justice is a greater security to government than Power. The goddess is seated on a rock, a palm-tree waves over her head, she is prepared to reward Virtue with its branches in one hand, and in the other holds a sword for the ready punishment of crime. Power is personified by a robust man of mature age, bearded and armed with a club; he is seated under an oak tree, and forms the corresponding figure at the back of the group of busts of the allied sovereigns, to that of Justice facing it. Beneath Themis, the Fates are introduced, to indicate that henceforward human actions will be controlled by Justice alone. These actions and passions are represented by the Furies, which, being placed beneath the emblematic figure of Power, are subjected to its influence, and no longer suffered to quit the infernal regions, or Cimmerian caverns, in which, at the base of this side of the medal, the allegory is completed by the figure of Night; the mother of the Fates receding into darkness, from the ruling daylight of Phœbus' car on the summit.

The Reverse. The central group on this side consists of a couple of equestrian figures, classically treated, but having the countenances of Wellington and Blücher. They are full of action, the figure personifying the hero of Waterloo is galloping in advance, and that of the veteran Blücher is rushing to the aid of his companion in glory, to complete the enemy's destruction. They are guided by a female figure of a flying Victory, placed between them, conducting their horses to the conflict. Quite detached from this central group and forming a border round it, a composition of many figures represents the battle of the Giants. They are struck down by the thunder of Jupiter; the youngest ones being the most daring in the assault of heaven, are the first to receive the divine punishment. In their descent they tumble over one another in every variety of attitude, symbolical of the confusion of the defeated enemy. The number of the figures of the giants is nineteen, illustrative of the nineteen years duration of the war; and in grouping these figures, they are represented following each other in succession.

There is at present no inscription on any part, and it is proposed to place solely on the edge of the medal, the words "Waterloo, June 18, 1815."

The artistic achievement of this unparalleled performance in medallion engraving remains to be considered, and there can be no hesitation in saying it is commensurate with the event it is intended to celebrate, worthy of the nation which ordained it, and honourable in the highest degree to the talent of the artist to whom it was confided. The public will naturally expect that no further delay than is absolutely necessary will take place, and that the illustrious Hæro now full of years, to whose honour and glory it is mainly dedicated, may yet receive in person the golden testimonial from the hands of his revered and beloved SOVEREIGN.

The dies remain in the possession of Mr. Pistrucci at his rural abode called "Fine Arts Cottage," at Old Windsor, Berkshire. He is there happily occupied in his favourite pursuit of the arts, along with the two accomplished young ladies, his daughters, whose proficiency in gem engraving merited the prizes recently given by the Art-Union Society of London, for a class of art not worthily encouraged or properly appreciated among us.

H. M.

[We are indebted for this notice to the courtesy of an esteemed Correspondent.]

THE BRITISH ASSOCIATION MEETING AT BIRMINGHAM, AND THE EXHIBITION OF MANUFACTURES AND ART.

FOURDRINIER'S PATENT SAFETY APPARATUS—SIR DAVID BREWSTER'S BINOCULAR CAMERA—PROFESSOR WHEATSTONE'S STEREOSCOPE—DR. BRAUN'S SCENOGRAPHY—FIFTHLY IVORY.

We have already adverted to some of the very prominent advantages which appeared to connect themselves with the Exhibition and the meeting of the Association for the advancement of Science at Birmingham. We are desirous of returning to the consideration of the interesting circumstances that have arisen from this union of pure science and its technical associations, principally for the purpose of drawing attention to some important matters which could not be included in the more general notice of the Exhibition of Manufactures, which appeared in our last number.

Although the *Art-Journal* is, as its name implies, purely devoted to Art and its valuable assistance to Manufactures, it has never failed, when the interests of humanity were concerned, to embrace their consideration, to the sacrifice even of its more immediate objects, though the subject may have been far beyond the circle of its duties. This has ever been our practice, from the feeling that every one of those readers, whom we desire to please, must possess that amount of exalted humanity which delights in every good, particularly when the good presents at once a means of ameliorating the condition of a large portion of our community. In the present instance we are desirous of giving the first consideration to an invention, by the application of which, we have no doubt, many valuable lives will be saved.

Our national importance is in a great measure dependent upon our immense mineral wealth, and our iron and coal may be considered as equal to two-thirds of the whole. The operation of mining for these valuable substances is, under the best circumstances, one of great difficulty, and always beset with dangers. The mere fact of working at great depths below the surface, where the exhilarating influences of the sunbeam, so essential to health and life, never penetrate, is of itself sufficiently tedious and wearing, even if the miner were never subject to any other ill. The terrors of the fire-damp lurk, however, like agencies of vengeance in those gloomy recesses; and every few months we are shocked by the details of explosions which sweep, at once, scores to destruction, leaving sorrowing widows and innocent children to the heritage of want. Again, the mode of descending into the mines and ascending from them, is full of risk. The men place themselves in a basket or cage, and are lowered to or raised from their work by a rope or chain. If either of these break from any accidental circumstance, from friction, or, as is sometimes unfortunately the case, from criminal design, being cut—the unfortunate men are dashed to pieces at the bottom of the shaft. We hear of an explosion sweeping off a great number "at one fell swoop," but the number of men destroyed in the coal and iron mines by minor accidents, particularly by the breaking of the ropes or chains,—far exceeds the numbers sacrificed by explosions.

In the grounds of Bingley House, Birmingham, is to be seen the patent safety apparatus of the Fourdriniers, forming a beautiful point in this Exhibition of Manufactures. The beautifully scientific machinery, patented by these gentlemen for the manufacture of paper of any length; and which is most extensively employed for receiving the impressions of engravings for the use of the Staffordshire potters, is well known.

The present invention, which has been tested in several mines most severely, promises to afford an amount of safety to the miner which he has not hitherto enjoyed. The apparatus consists of a cage or basket, which can be employed in every way, precisely as any arrangement now in use. This is attached to guide rods or chains in the shaft, and upon the rope or chain being broken, arms, forming powerful

levers, are liberated, and these are wedged most securely upon the guide rods. The apparatus has no chance of falling more than a few inches after the rope or chain is broken. The stop is most perfect, and so free from any violent action, that no danger is to be apprehended from recoil. Another arrangement has been made, by which the casualties arising from being drawn over the pulley are entirely prevented. It must be understood that this machine is perfectly self-acting, and that the greater the weights which may be in the cage, the tighter do the wedges hold upon the guide-rods in the event of any accident occurring. The apparatus has been inspected by some of the largest coal proprietors of the kingdom, and so highly do they approve of it, that orders have been given to the Messrs. Fourdrinier to place their invention in several of the most important pits in the north. The achievement of such a work as this, by which a source of misery is removed, is deserving of the highest reward; and we trust that the public will not be slow in convincing the able inventors that they can appreciate so important a work at its real value.

It is not often that the scientific sections of the British Association furnish matter which is of interest to the lovers of Art. In the present instance we have, however, two or three very striking examples of communications, which promise to be of much value to Art, and which are of the highest interest to those who desire to study the best works of genius in their utmost purity.

In the physical section, Sir David Brewster brought forward a new description of camera obscura, to which he has applied the name of *Binocular*. The principal object of this instrument is to obtain copies of statues and living bodies, which can be exhibited as solids by the Stereoscope of Professor Wheatstone. Sir David Brewster having published in the *Literary Gazette* a paper on the construction and applications of this camera, we shall adopt some parts of the explanations there given, to convey to our readers the best information on this curious and interesting subject:—

"In order," says Sir David Brewster, "to understand the subject, we shall first consider the vision with *one eye*, of objects of dimensions, when of different magnitudes, and placed at different distances. When we thus view a building, or a full length or colossal statue, at a short distance, a picture of all its visible parts is formed on the retina. If we view it at a greater distance, certain parts cease to be seen, and other parts come into view; and this change on the picture will go on, but will become less and less perceptible as we retire from the original. If we now look at the building or statue from a distance through a telescope, so as to present it to us with the same distinctness, and of the same apparent magnitude, as we saw it at our first position, the two pictures will be essentially different; all the parts which cease to be visible as we retired, will still be invisible, and all the parts which were not seen at our first position, but became visible by retiring, will be seen in the telescopic picture. Hence, the parts seen by the near eye, and not by the distant telescope, will be those towards the middle of the building or statue, whose surfaces converge, as it were, towards the eye, while those seen by the telescope, and not by the eye, will be the external parts of the object whose surfaces converge less, or approach to parallelism. It will depend on the nature of the building or the statue which of these pictures give us the most favourable representation of it."

"If we repeat the preceding experiments with two eyes instead of one, the building or statue will be of a different appearance. Surfaces and parts, formerly invisible, will become visible, and the body will be better seen, because we see more of it; but then, the parts thus brought into view, being seen, generally speaking, with one eye, will have only one-half the illumination of the rest of the picture. But though we see more of the body in binocular vision, it is only parts of vertical surfaces perpendicular to the line joining the eyes, that are thus brought into view, the parts of similar horizontal surfaces remaining invisible as with

one eye. It would require a pair of eyes placed vertically, that is, with the line joining them in a vertical direction, to enable us to see the horizontal as well as the vertical surfaces, and it would require a pair of eyes inclined at all possible angles, that is, a row of eyes two and a half inches in diameter, to enable us to have a perfectly symmetrical view of the statue."

"With these observations, we shall be able to determine the best method of obtaining dissimilar plane drawings of full-length and colossal statues, &c. in order to reproduce them in three dimensions by means of the stereoscope. Were a painter called upon to take drawings of a statue, as seen by each eye, he would fix at the height of his eyes, a metallic plate with two small holes in it, whose distance is equal to that of his eyes, and he would then draw the statue as seen through the holes by each eye. These pictures, however, whatever be his skill, would not be such as to reproduce the statue by their union. An accuracy, almost mathematical, is necessary for this purpose, and this can only be obtained from pictures executed by the processes of the Daguerreotype and Talbotype. In order to do this with the requisite nicety, we must construct a binocular camera which will take the pictures simultaneously, and of the same size; that is, a camera with two lenses of the same aperture and focal length, placed at the same distance as the two eyes. As it is impossible to grind and polish two lenses, whether single or achromatic, of exactly the same focal lengths, even if we had the very same glass for each, I propose to bisect the lenses, and construct the instrument with semi-lenses, which will give us pictures of precisely the same size and definition. These lenses should be placed with their diameters of bisection parallel to one another, and at the distance of two and a half inches, which is the average distance of the eyes in man; and, when fixed in a box of sufficient size, will form a binocular camera, which will give us at the same instant, with the same lights and shadows, and of the same size, such dissimilar pictures of statues, buildings, landscapes, and living objects, as will produce them in relief in the stereoscope."

It being understood that the images thus obtained by means of the camera are different in some slight degree from each other, that is, that one is the image as seen by the right eye, and the other as seen by the left eye—it will not be difficult to understand that if we have an arrangement by which these two images are brought to the true concurrence of the optic axes, we shall obtain, in appearance, a *solid figure*.

THE STEREOSCOPE consists of two plane mirrors about four inches square, inserted in frames, and so adjusted that their backs form an angle of 90° with each other. These mirrors are fixed by their common edge against an upright board, so that the nose being brought against it, the two eyes are placed before the two mirrors. At a few inches distant from the mirrors are fitted two sliding panels, which are capable of being placed at different distances from them. Into these the two drawings of any statue or other object are placed, and these are of course reflected in the mirror. To use the stereoscope, the observer must place his eyes as near as possible to the mirror, the right eye before the right hand mirror and the left eye before the left hand mirror, and the sliding panels must be moved to or from him until the two reflected images coincide at the intersection of the optic axes, and form an image of the same apparent magnitude as each of the component pictures.

In this manner we may obtain beautiful representations of images of all kinds,—statues, living bodies, natural objects, or machinery,—of three dimensions.

To the sculptor the apparatus described must be invaluable. By a very easy process he will be enabled to obtain faithful copies of any chosen work of art, or of any model from which he may desire to study, and to reproduce them before him in all the perfection of the solid form whenever he may please to do so. Superficial forms are brought before the eye in three dimensions at will; and taking advantage of the photographic processes, we may now secure for our portfolios copies of the finest works of anti-

quity, whether they are the sculptures of the Vatican, or of our own collections. The temples of Egypt, Greece, or Rome, or the beautiful remains of the industry of our Saxon fathers which are scattered through the land, may by the same means be preserved, and by the aid of the stereoscope brought before the eye of the observer in such a form, that the illusion is perfect, and the solid mass stands in all its proportions an object for study or for admiration.

Immediately connected with this interesting subject is the communication of M. Claudet to the Chemical Section on Photography, to which we are desirous of directing the notice of our readers, and which we purpose bringing forward in another number, with some observations of our own.

In our notice of the exhibition, we have already alluded to some electrotypes exhibited by the Messrs. Elkington; but from the important position they promise to take in the progress of Art-education, we are induced to return to a consideration of their merits. From the facilities which the process of electro-deposit offers for the reproduction of any works of art, it has occurred to Dr. Braun to aim at procuring fac-similes of the finest specimens of antiquity by such means. This gentleman has been for some years resident in Italy, and during that time he has most industriously obtained moulds of many of the finest works of the sculptor's art to be found in the Vatican, and in other public and private collections in the Italian states. These moulds have become the property of Messrs. Elkington, and they are producing copies of the originals in all their pure perfection.

Numerous advantages are attendant on this means of reproduction over ordinary casting. Moulds from the originals, suitable for the electrotype process, are obtainable with much greater ease and in a greater variety of materials than can possibly be employed for castings; therefore the copies may be produced at a much cheaper rate than has been hitherto practical by any other process. The unerring fidelity of the electrotypes is another strong recommendation, perfect fac-similes of the originals being thus obtained. The figures now exhibited are the results of the first efforts made by those spirited manufacturers, and as such they are of the highest promise. It appears that the designs of the Messrs. Elkington are not only to reproduce by this method the finest statues, busts, bas-reliefs, vases, &c. of ancient art, but to extend the process to the multiplication of the works of modern artists. It must be remembered that the beauty of all productions of high art depend upon certain delicate touches, which are especially the indications of a master mind directing a skilful hand. Therefore the merit of every copy consists in the fidelity with which these are repeated. In ordinary casting, unless the utmost expense is incurred, it is impossible to attain this excellence; whereas the electrotype copies, however multiplied, are all exact repetitions of the original.

Time has spared from destruction numerous examples of the genius of past ages. The republication of these at such a price as will place them within the reach of all who are educated to appreciate the value of these beautiful efforts of thought, and that devout study of the beautiful which distinguished the works of Greece in its palmy days, and some of the productions of Rome and of the Italian Schools, ere yet the blight of a false taste fell upon them, will do much to cherish into full activity that love for the excellencies of Art which we hope and believe is like a living stream, flowing through the masses of European population.

A little pamphlet, "Classical Iconography," by Dr. Emile Braun, has been placed in our hands. This gentleman has caused the portraits of those writers and statesmen of classical antiquity, which are undoubtedly genuine, to be skilfully copied on a reduced scale. These elegant reproductions will be multiplied by the aid of the electrotype, in castings more or less fine and solid; so that every one, according to the extent of his means and his taste in Art, may obtain whatever style of workmanship suits him best for the adornment of his study table. The ancient actors and dramatic poets were wont,

during the studying of their parts, to place before them the masks of those whose mental characters it was their business to express orally. For those who love to hold communion with the old classics it will be a source of great enjoyment and intellectual instruction thus to enter into a kind of personal intercourse with the great spirits to whom we are indebted for these immortal productions.

Already published by Messrs. Elkington are the following:—Double Hermes of Herodotus and Thucydides, Sophocles and Aristotle; these are speedily to be followed by the portraits of Æschylus, Alexander the Great, and Demosthenes. The moulds for these have been obtained from the Museo Borbonico, at Naples, and from the Lateran Museum.

Desiring to render such productions and the superior works of our own artists, familiar to the great public, Messrs. Elkington also bring forward copies of these and other works of Art in a material which they have named Fictile Ivory. These are preparations of the finest plaster of Paris, which, by nice manipulation, is made to absorb stearine or some similar agent. Where the requisite care is taken, the imitation of ivory is most perfect; and in all the productions now published by this firm, the results are exceedingly good.

These fictile ivories will do much to cultivate a taste for the Arts, since, by this mode, the finest models, or ivory and miniature sculptures, may be multiplied at a comparatively trifling cost, and thus find their way into the hands of those from whom at present they are entirely excluded. With such motives, which are in the highest degree creditable, this superior order of fictile ivory is now introduced to the public. The specimens in the Birmingham Exhibition are very satisfactory, but we expect still superior things from the taste which directs this undertaking. We have heard objections urged by the possessors of some of the gems of ancient Art, that this, or any similar process will have the effect of destroying the value of their specimens, which they now pride themselves in regarding as unique. Surely the selfishness of human nature cannot be carried to a more lamentable extent than is implied to have existence, on the evidence of this poor objection. To satisfy, however, those who would desire to possess the beautiful for themselves alone, allow us to suggest that an additional value will often be given to a master-work, the originals of which they may possess, when its perfections are made known by faithful copies. We require that the taste of the British public should be cultivated; and we trust that the efforts of those manufacturers who have started in advance of this miserable spirit, will receive that reward which their enterprise so justly deserves.

ROBERT HUNT.

[Referring to the Birmingham Exposition, we feel again called upon to remark upon the impolicy and injustice of permitting mere dealers to contribute articles in their own names; thus depriving the actual manufacturer of that honour which we trust very many of them consider as one of the substantial rewards of enterprise and talent. We trust this highly objectionable system will be cautiously avoided when arranging the Exposition of 1861; that no object will be exhibited except with the name of the inventor or producer; and that as far as possible, the name of the Designer also will be given. Manufacturers could lose nothing by making known the parties to whom they are indebted for designs. In our notice of the Birmingham Exposition, we made some note of a series of cast-iron vases—copies chiefly from the antique, which stood at the entrance to Bingley House. We engraved one of them, which we erroneously attributed to a Mr. Wright. We extract the following from a local newspaper:—

"Sir,—On my visit to your Exposition this morning, I observed a number of cast-iron vases in the approach road, and on referring to the catalogue, I find the whole are described as being contributed by Messrs. Mapplebeck & Lowe, of Birmingham, manufactured by the Coalbrookdale Company. It is not for me to say if the description given is by the contributors or by the committee of management, but I think right that the public should know that Nos. 1, 2, 4, 5, 6, 7, 8, and 11, were cast at the Britannia Foundry, Derby, and supplied to the contributors by Mr. A. Handyside.

"Britannia Foundry, Derby."

We have only to add that these works are highly creditable to the manufacturer. They are by no means costly, and are admirably suited for lawn or garden decorations.

THE VERNON GALLERY.

THE DUTCH FERRY.

Sir A. W. Calcott, R.A., Painter. H. Wallis, Engraver.
Size of the Picture 3 ft. 1 in. by 2 ft. 3 in.

No country of Europe, perhaps, has undergone so little change within the last two centuries as Holland. In its natural aspect, the general appearance of its towns and villages, and in the domestic habits and manners of the people, we see now very nearly the same scenes as the old Dutch painters presented to us. When Wilkie visited the country, he wrote to his friend Sir G. Beaumont—"Nothing seems new to me here, for I had been familiar with it all upon canvas, and what one could not help wondering at, was, that these old masters should have been able to draw the materials of so beautiful a variety of art from so contracted and monotonous a country." The remark applies with almost equal force to all classes of artists, whether marine or landscape-painters, or of the common incidents of life. It will therefore scarcely be a subject of wonder, that even the works of modern Dutch painters bear a close resemblance to those of their predecessors, when the sources from which they draw their material have undergone little or no change. While improvement and revolution have been rapidly marching throughout the rest of Europe, Holland has remained almost "*in statu quo*."

Calcott showed in many of his works a strong predilection for the Dutch school, as in the picture from which Mr. Wallis's engraving is taken; we here find the same mellow, atmospheric tints, and the same delicacy of pencilling, as form the peculiar beauties of that school. The subject possesses nothing of more than ordinary interest; on the right are some houses overshadowed by the thick foliage of a fine group of trees; the peasantry of the country are variously occupied in the foreground; and on the left, a Schuyt or market-boat has just unmoored from the shore; it is rowed by a woman, for females here, as in some other countries, perform those laborious duties which ought more properly to be performed by the stronger sex. The composition opens in the distance, showing the course of a river with boats, and another village embosomed in trees.

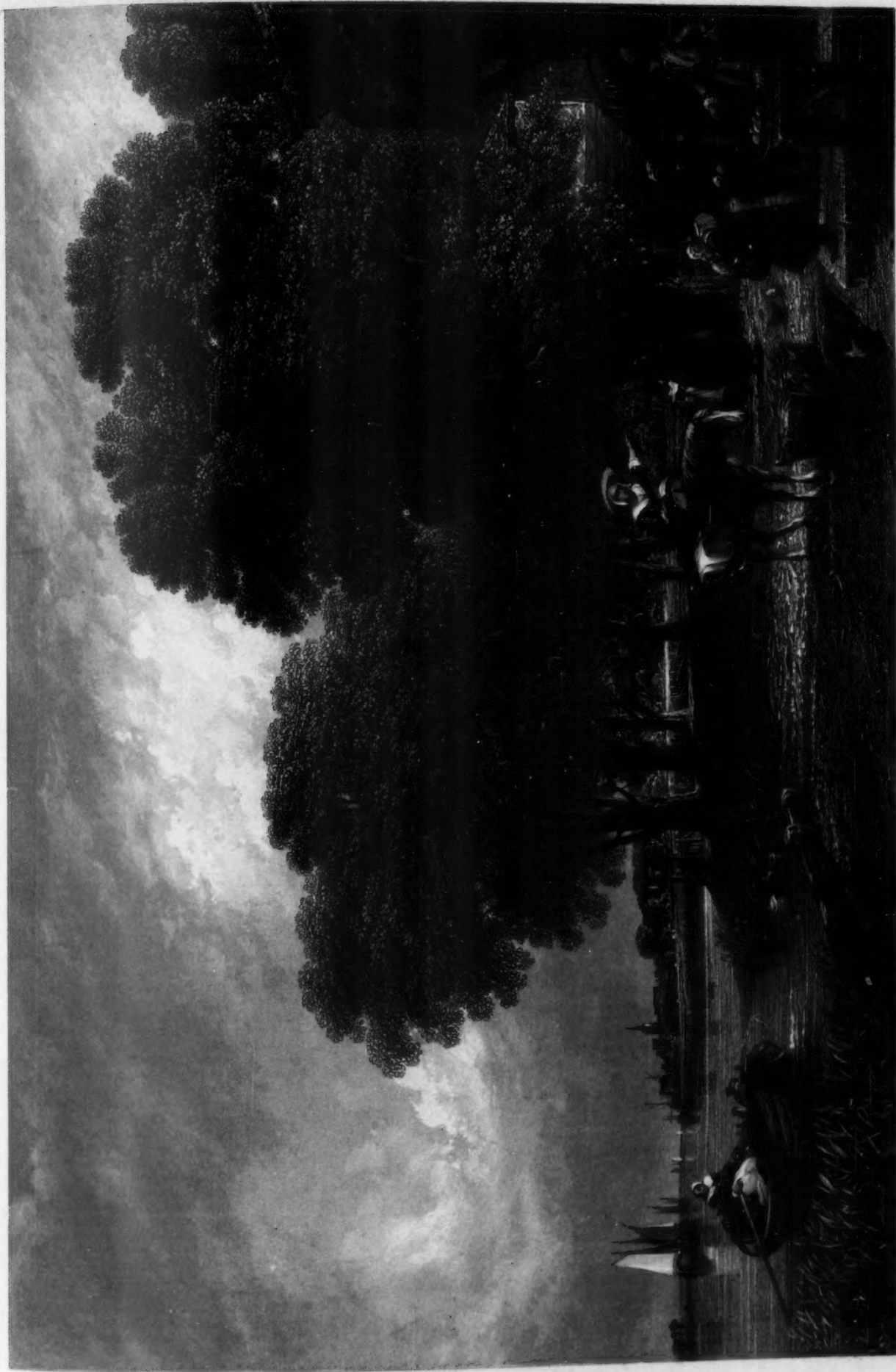
The picture, which is a charming specimen of Calcott's quiet and perfectly natural style, was exhibited at the Royal Academy in 1832.

MEMOIR OF T. S. COOPER, A.R.A.*

I was born in the city of Canterbury, Kent, 26th September, 1803, so says my mother, and christened in October, so says the church register. In the early part of my babyhood I did nothing in the Fine Arts, but passed the most of my time in screaming; and whenever that voice was heard in the house, my mother used to observe, "There's that Tom again." Whether I cried for sugar-sticks or black-lead pencils, is not chronicled in the family records; but during this eventful period of my life, my father, influenced by some blind infatuation, deserted his wife and children, and left me (like the youngest son of most families,) to grope my way as I could. The earliest recollection that I have of myself is on one Sunday morning, when I was sketching, with my brother, the great church, for so we called the Cathedral; and I continued to sketch that and all those neighbouring objects that attracted my boyhood's fancy, when the weekly half-day holiday would give me time, till I was thirteen years of age. At this period my mother wished me to be bound an apprentice to some trade, to relieve her, in some measure, of the expense I was to her; every body feeling, more or less, about this time, the effects of the long-continued war with the Empire, food and raiment being at so high a price. She mentioned shoemaking, carpentering, and, not perhaps without some reason, house-painting; but I, influenced no doubt by a love of drawing, thought I should have been deprived of the practice of that Art to which I was so fondly attached; I therefore replied to her, "I

* Mr. Cooper has favoured us with a sketch of the principal events in his career as an artist, which he has been pleased to embody in the form of a "fireside address" to his children. It will doubtless be perused with interest, from the pen of one whose pencil, in its peculiar department, is unrivalled in the present day, and has scarcely, if ever, been surpassed in ancient times.

could not be bound an apprentice, for I had a mind above it." Being deprived of a father's assistance and advice, and my mother thinking that for her son to become an artist, was to ensure to himself an inheritance of poverty, I became, as it were, a neglected plant, for although no one would strike me down, none cared whether the blight assailed, or lightning withered me. The fact was, as my mother observed, that to become an artist was to inherit poverty, and therefore I felt that at the early age of fourteen I was left entirely to my own resources. I was never cast down, never mingled much with my play-fellows, but when opportunity allowed, was always making sketches of the surrounding scenery, and those objects of interest and antiquity with which the city of Canterbury at that time abounded. Occasionally I sold one of those sketches for a few shillings. Thus was I occupied till I was sixteen, when one evening making a sketch of the north view of the Cathedral from the suburbs, a gentleman approached me, apparently in bad health, and I did not appear to attract his notice till he came up to where I was sitting. "Ah, you are drawing, my boy," he said. "Yes, sir," I replied, "I am drawing the church." "And your drawing is very clever, very well, indeed," he continued, after looking over it. He then asked me several questions relative to my age, parentage, &c., all of which I answered. He then said I should draw very well if I had some knowledge of perspective. "What is that?" I asked. "I never heard of the word." "Well," he replied, "my boy, it is that necessary principle of Art that makes a thing look large although at a distance" (I now suppose he meant its retaining its real size though appearing small to the spectator;) "and if you will come to me to-morrow morning," he continued, "I will teach you. My address is at the Theatre." I started at that, my family being all Dissenters; however, I went to the theatre the next day, and there I was initiated into all those mysteries of Art which have ever since influenced me; but the season shortly breaking up, I was left without the instruction of this kind feeling man, whose name was Doyle. I then again had recourse to drawing the old buildings in the city, and disposing of the sketches to strangers; and thus I was enabled, (at my own expense,) to join Mr. John Martin's evening classes, who was then the best drawing-master in East Kent, and who, when he saw I could assist his junior pupils, kindly allowed me my own instruction gratis. Thus, by great perseverance, I continued till the next year, when the players returned again to Canterbury, Mr. Doyle with them, and then, to my surprise and sorrow, I found that he was in bad health, and, indeed, he died within a very few weeks of his arrival, an event, however odd it may sound, that was extremely advantageous to me; for, though I lost his instruction, I had the engagement to finish the scenery he was upon, during which time a gentleman came to Mr. Dowton (a son of the Dowton) who had taken the Feversham, Hastings, and other theatres. He asked Mr. Dowton if he could recommend any scene-painter. Mr. Dowton, pointing to me, said, "There's a young man that will exactly suit you." I was engaged that morning, and in a few days went to Feversham, where I painted the scenery for "Macbeth," and other pieces, and at the end of June, 1820, arrived at Hastings, being then about seventeen years of age. Here I painted the whole of the summer. Things not being very prosperous, and being greatly solicited by an uncle, a clergyman, who promised that if I would leave my wandering life, as he termed it, he would get me a studentship in the Royal Academy in London, I left, and returned to Canterbury, and after resuming my old occupation, aided by teaching, till 1823, my uncle invited me up to live with him in London, that I might have the advantages of instruction; but I found that his promise of procuring me a studentship in the Royal Academy was quite visionary; and therefore the next morning, although a stranger in London, I left his breakfast-table, and returned that day to dinner a student in the British Museum, without help from either relations or friends. Two or three months after that, I became, by means of a letter from Sir T. Lawrence,



SIR A. W. CALCOTT, R.A. PAINTER

W. WALLIS - ENGRAVER

A DUTCH FERRY

FROM THE PICTURE IN THE VERNON GALLERY

SIZE OF THE PICTURE
15 IN. BY 25 IN.

PUBLISHED FOR THE PROPRIETORS

22 JU 52



Thos. Sidney Cooper

a student in the Angerstein Gallery, and then, 1824, a student of the Royal Academy.

Some months after, my uncle finding me a burden to him, that is to say, I was not earning anything, put into my hands my coach fare to Canterbury, and a bill of my board, lodging, and washing, during the nine months I was under his roof. Thus I returned to the place of my youth without a friend, without a father, without any sort of assistance and advice. I had only a poor mother to receive me; but it is now my happiness to know (although in early days I was a neglected plant, and the study of Art was the only occupation that, in her estimation, would keep me poor and needy), she now finds shelter under its branches in her old age, and in a great degree, through Providence, I am enabled to make her winter-path more smooth and bright, than, alas! was her spring-time or summer.

Thus, from 1824 till 1827, my sole occupation was teaching in Canterbury and the surrounding towns. I was in the receipt of an easy income, the average amount of which was 200*l.* a-year, when a French gentleman came to settle in Canterbury, and undertook to teach the French language, mathematics, and engineering; but desiring, doubtless, to extend the sphere of his operations and emoluments, he likewise commenced to teach drawing. Whatever estimate I might have had of his artistic abilities, I always considered him a gentleman, though through him my teaching fell off, my means were reduced, and in 1827 I left England to seek my fortune in a foreign land, in company with a school-fellow, Mr. W. Burgess, now a drawing-master at Dover.

Thus shipwrecked in all my early hopes, I set sail one Sunday morning in July, 1827, with forty-five sovereigns, and my friend, who was with me, with twenty-five, and thus we voluntarily exiled ourselves from our country and friends. It was in an express boat that we left Dover, and, as from the position of the wind, we were obliged to near the Goodwins, we experienced a melancholy pleasure in hearing the "National Anthem" played on board the "Ramilies," then a guard-ship in the Downs.

We arrived at Calais in the afternoon, and thought the distance was trifling from shore to shore, yet such was our excitement at beholding the pictorial character of a French town and people, that we forgot the responsible situation in which we had placed ourselves, and then it came to our conviction that we must earn money if we wished to live. But what were we to do? However, after making a few sketches of Calais, we proceeded to Gravelines. My friend being then fearful that we should come to want, wished to return home; but I, who was never cast down by ordinary difficulties, said, "Nonsense. I will take your portrait," which I did, the next morning before breakfast; and the pleasure we both enjoyed when I showed it to the son of the landlord of the inn, and he exclaimed, "Diable, mon dieu! comme ça ressemble, il faut faire le portrait de ma femme," was unbounded; and before I could follow my inclination and make a hearty breakfast, I was hurried off to make a sketch of the wife, as also one of himself and two children, before dinner. The next day I made drawings of his father, mother, the notary of the town, his wife, and their two children. We were entreated to stay to draw others, but Gravelines being an uninteresting place, we left on the fourth day, our knapsacks on our backs, with fifty-two francs profit, after paying our expenses at the inn.

We proceeded to Dunkirk, and spent a fortnight there, taking portraits with the same success. Not having any definite place of route, we left Dunkirk by Bruges and Ghent, and arrived at Brussels in the middle of August. There we commenced the same means of livelihood, and in order to do it more effectually, we took lodgings and exhibited the drawings in the window. This brought to me many persons desirous of having their portraits taken, among whom was a French nobleman, accompanied by a very beautiful lady; he said to me, "Faites le portrait de cette dame," and quitted the room. I was very much puzzled to know whether I was capable of taking her likeness, or of withdrawing my eyes off her, when she said, with a most amiable smile, "Maintenant, monsieur, commencez." I,

covered with blushes, commenced the drawing, but found that I was incapable of doing it, when the gentleman returned, and taking the drawing in his hand said, "Yes; it resembles her, but still it is not her;" and taking up another drawing that he saw in the window, said, "If you did the background to this drawing, you are much more capable of drawing landscapes than portraits; make me a little sketch in pencil, and I will pay for it double the sum you charge for the portrait." In half an hour I had finished the sketch. He was delighted with it—paid the money, and, with the lady and drawing, left the room. I mention this trifling circumstance for it had so great an influence on my subsequent prospects. A few days after, to my surprise, I had several applications for pencil-drawings of landscapes, and also for giving lessons; and during four years, dating from that period, I was in the enjoyment of the highest patronage.

It was from this period to the year 1829 that I made the acquaintance and married one of the most amiable and accomplished ladies of the English residents, your beloved and lamented mother, which prevented my taking advantage of the friendship and instruction of that great animal painter, Mr. Verboeckhoven, as I was obliged to make a provision for my family in the time which I would otherwise have been devoting to study. But it is my happiness to feel now as I did then, that I enjoyed his friendship and experienced his very great kindness, and that whatever I have been able to do since I left the Netherlands in my branch of Art, I owe to him. Thus I continued prosperously; but in the revolution of 1830 my hopes again were shipwrecked.

Having in that year been engaged to go to the principal towns of Holland to make some sketches, I had an opportunity of seeing the works of the great animal painters of the Dutch School. Then, for the first time, I was impressed with the feeling that this branch of Art was not much practised in England; and I should have set about studying the works of these great painters, had not the Revolution then broken out in Brussels, which annihilated all my resolutions and hopes, and forced me to return here, after many difficulties, and imprisonment. I arrived on the second day of the Revolution, when I found my wife and child outside of the town, at her father's house, and her only brother dead from wounds in the conflict. But I pass over these dreadful scenes and the difficulties arising from them, during the space of nine months; I returned to England in the summer of 1831. Then again I had to begin life without a friend or an acquaintance; but, as before, was never cast down by discomfiture or difficulty; and the hope reviving that I might become a painter, induced me to study all day in the fields, from nature—animals, and landscape, and in the evenings I laboured for the wants of my family by making pencil drawings and drawings on stone. Thus I continued till 1833, when I exhibited my first picture in the Suffolk Street Gallery, which was so favourably noticed, that in 1834 I was commissioned by Mr. Vernon to paint the picture which is now in the Vernon Gallery. Then it was, on my first visit to my dear mother and family, my townsmen met me with open hands, congratulating me on the distinguished position to which I was raising myself. Yes, these very persons who never helped me when I needed assistance, who never put forth the fostering hand to the poor "artist boy," now assumed the credit and participation in the honour I was gaining, and called me their distinguished townsman, and praised that structure to which they gave no helping hand. Subsequently, from year to year, I met with equal success, till, in 1845, I was elected an Associate of the Royal Academy, previous to attaining which object of my ambition, I lost her who was my best friend, who consoled me in all difficulties, and sustained me in all circumstances; who rejoiced with me in my success, and, as you can remember, was one whose agreeable society and amiable disposition gained her many friends, and whose death has left a void which eternity only can fill. Since then, you know the rest.

T. S. C.

PASSAGES FROM THE POETS.



Drawn by E. H. Corbould.

Engraved by H. P. Nicholls.

THE DEATH OF MARMION.

"The war, that for a space did fall,
Now trebly thundering shook the gale,
And—"STANLEY!" was the cry;
A light on MARMION'S visage spread,
And fired his glazing eye:
With dying hand above his head,
He shook the fragment of his blade,
And shouted 'VICTORY!'"

CANTO VI. 32.

PASSAGES FROM THE POETS.



Drawn by F. W. Hulme.

Engraved by W. Green.

A SUMMER DAY'S RETREAT.

" Calme was the day, and through the trembling ayre,
Sweet breathing Zephyrus did softly play,
A gentle spirit, that lightly did delay
Hot Titan's beames, which then did glyster fayre;

Along the shore of silver-streaming Themmes,

There, in a Meadow, by the River's side,
A Flocke of Nymphes I chaunced to espy,
All lovely Daughters of the Flood thereby,
With goodlie greenish locks all loose untyde
As each had bene a Bryde,
And each one had a little wicker basket,
Made of fine twigs entrayled curiously,
In which they gathered flowers."

SPENSER. *Prothalamion.*



John Thomas

JOHN THOMAS, the well-known sculptor and modeller, has been engaged for a series of years under Mr. Barry, in modelling the ornamental detail of the great national edifice now being raised at Westminster, has latterly contributed some fine statues to the exhibitions of the Royal Academy, and is at present architect for several extensive mansion houses in various parts of England. Mr. Thomas was born at Chalford, in Gloucestershire, in 1813; and at the age of thirteen years, being left an orphan, was apprenticed to a stone-cutter in a neighbouring village, having three miles to walk every morning and evening to and from his work. Anxious to avoid being a burden to any one, the orphan boy, although wearied out with the day's toil, devoted his evenings to engraving brass-plates, painting sign-boards, and lettering grave-stones, for which, of course, he was paid at the lowest rate, but as a compensation, was talked of as a prodigy of precocious genius. There can be little doubt, however, that to the habits of application thus induced, he is indebted for his present eminent position.

During the last year of his apprenticeship he was enabled to gratify a feeling he had long cherished, a desire to visit a beloved brother, then resident in Oxford. On this occasion he walked forty miles through deep snow, in the depth of winter, and considered himself extremely fortunate in securing for the remainder of the way a seat on a coach, for the whole sum in his possession, namely, 9s. sterling. His fraternal affection was amply rewarded, and his feeling for Art highly gratified. The beautiful architectural details with which the structures of that city abound, became from that day a source from which he drew largely, not only imitating the letter, but endeavouring to embody the spirit of these fine creations of Fancy and Art; and there can be little doubt, that to this visit to Oxford Mr. Thomas is much indebted for his excellence as a draughtsman, a modeller,

a carver, and an architect. In this he resembles Kemp, the peasant architect of the celebrated Scott monument in Edinburgh, who, while serving his apprenticeship to a millwright in a country village, was sent one day on a message to Roslin, some ten miles distant, when his fancy was so caught with the unique details of the beautiful little chapel there, that from that day forth he became an architect.

When Mr. Thomas had completed his apprenticeship at Chalford, he went to Birmingham, where he had a brother at that time practising as an architect. With him he spent three months, after which time he executed and erected in the town of Huntingdon, an elaborate Gothic monument, which excited much attention. This, and several other works of similar character in and around Birmingham, attracted the attention of Mr. Barry, then engaged on the grammar school in that town, who employed Mr. Thomas to model from his designs and execute in wood and stone, the carvings and sculptures of coats of arms, armorial bearings, bosses, pendants, &c., with which that fine structure is enriched, and on which the artist was employed during a period of three years.

After the completion of the grammar school, Mr. Thomas went to Leamington, to which town his brother, the architect, had removed, where he officiated as assistant in designing and making drawings for mansion houses, &c., but not getting satisfactory remuneration for his labours, he returned to Birmingham, where his amiable disposition, modest demeanour, and high talent had secured him a number of kind and influential friends. He there executed several works, and was employed by Mr. Blore to model and carve in stone and wood at Crewe Hall, as well as at Capesthorpe Hall, large coats of arms and heraldic devices. Shortly after this he was engaged at the railway stations on the North Midland line, carrying out Mr. Thompson's ideas in ornamentation and in carving coats of arms appropriate to the various towns at which the stations were built. So soon as the new palace

at Westminster was ready for ornamentation, Mr. Barry engaged Mr. Thomas to superintend the stone-carving of the entire structure. The statues on the north and south fronts, the panels, with the Royal Arms of England, from the Conquest till Victoria; the statues and bosses in Victoria Tower; the bosses in St. Stephen's Hall, representing the leading incidents in the life of St. Stephen, may be cited as specimens of Mr. Thomas's industry and talent. When the Royal Commissioners for the Fine Arts invited artists wishing to be employed on the carved wood-work of the new palace to send in competition designs and specimens of their work, Mr. Thomas's design for the door to the House of Lords was the first named in their report, and he was one out of nine sculptors selected to execute the eighteen statues which are to be placed in that magnificent hall. This success induced Mr. Thomas to aim at high Art, and at last year's Royal Academy Exhibition his statue of "Miranda" attracted much attention, while the statue of "Musidora," in the present year's exhibition, shows still higher attainment in this most delightful department of Art.

Recently Mr. Thomas was commissioned by Prince Albert to execute two large bas-reliefs of "Peace" and "War" for Buckingham Palace, and these have been finished in a style which has elicited the high commendation of royalty. The immense lions on the entrance piers at Britannia bridge, Menai Straits, each of which measures twenty-five feet in length and weighs eighty tons, even in these gigantic dimensions, display fine symmetrical proportion and masterly general conception; these are also the production of Mr. Thomas. Mr. Brunel, the eminent engineer, having recently reared and fitted up in his house a superb apartment called "The Shakspeare Gallery," has commissioned ten of the most eminent of the Royal Academicians to paint illustrations of the poet's productions to adorn the walls, and Mr. Thomas has chiselled for the fine marble Elizabethan mantelpiece terminal statues of "Tragedy" and "Comedy," both of which figures are full of grace and expression.

The superb new station at Euston Square is adorned by a series of large bas-reliefs from the studio of Mr. Thomas, typifying in a very characteristic manner the chief cities and towns connected with the North Western Railway, as well as a large group in alto-relievo representing "Britannia," supported by "Science" and "Industry."

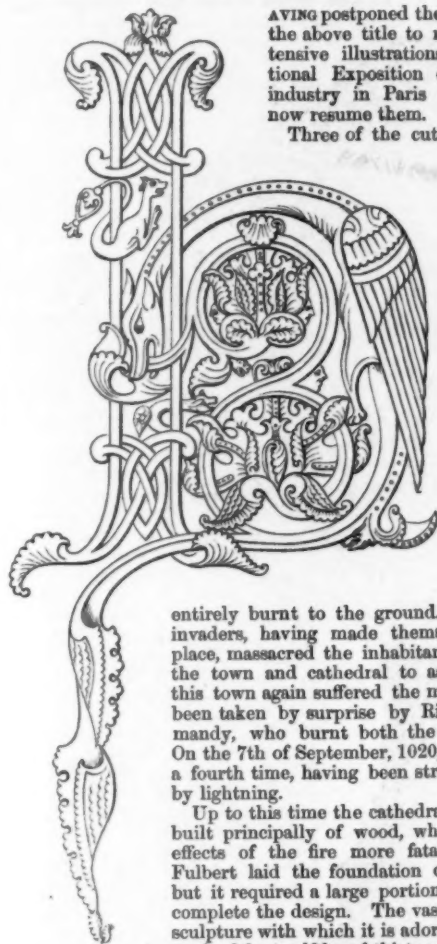
The National Bank buildings at Glasgow, the Imperial Fire Office, London, the Law Courts at Bristol, and a number of our finest public structures contain specimens of Mr. Thomas's skill as an architectural sculptor, and fine examples of his monumental sculpture are in many of our churches. Lincoln's Inn Dining Hall contains several excellent specimens of carving in solid oak by Mr. Thomas, in life-size effigies of bishops, judges, and eminent men connected with that Institution; and another exquisite specimen of his skill in that department of Art, is a most elaborately carved oaken altar-screen, in Kildoun Church, the property of R. Beresford, Esq.

Perhaps, however, the most important incident in the life of this excellent artist and worthy man, was his having been employed by Mr. Peto, M.P. to alter and extend his mansion house of Summerleyton, in Norfolk. This he has accomplished by an extraordinary effort of skill and judgment, having transformed an old square country box into an English Versailles, with fountains, groups of statuary, rich parterres, ornamental flower-gardens, &c. The mansion is designed in an Anglo-Italian style peculiarly original and characteristic, and the interior furnishings are from designs by the architect.

Since this mansion house has been erected, Mr. Thomas's talents as an architect have become known and appreciated, and, lately, in his studio we saw a design for a very large mansion house now being erected near Maidstone, remarkable for pictorial effect and symmetrical proportion. Nothing seems to come wrong to Mr. Thomas in the shape of Art. His whole career shows a remarkable aptness for adaptation: sculpture, carving, designing, drawing, painting, and architecture,—he is equally at home in them all.

[The engraving is taken from a portrait by Mr. W. B. Scott, of Newcastle-on-Tyne.]

EXAMPLES OF MEDIAEVAL ART APPLICABLE TO MODERN PURPOSES.



HAVING postponed the series of papers under the above title to make room for the extensive illustrations taken from the National Exposition of the productions of industry in Paris and Birmingham, we now resume them.

Three of the cuts represent portions of priests' vestments taken from sculptured figures under the south porch of the cathedral at Chartres. This cathedral is one of the most ancient in France, and has suffered from an unusual number of casualties by fire. M. Lejeune, the talented librarian of the city, has published a curious essay on this subject under the title "Des Sinistres de la Cathédrale de Chartres." It appears that in 723 the town and cathedral were

entirely burnt to the ground. In 858 the Norman invaders, having made themselves masters of the place, massacred the inhabitants, and again reduced the town and cathedral to ashes. In 962, or 963, this town again suffered the miseries of war, having been taken by surprise by Richard, Duke of Normandy, who burnt both the church and the city. On the 7th of September, 1020, the church was burnt a fourth time, having been struck, as it is supposed, by lightning.

Up to this time the cathedral of Chartres had been built principally of wood, which had rendered the effects of the fire more fatal. In 1028, Bishop Fulbert laid the foundation of the present edifice, but it required a large portion of three centuries to complete the design. The vast mass of statuary and sculpture with which it is adorned, appears to be the work of the twelfth and thirteenth centuries. The portals, from which our examples are taken, seem to have been executed in the early part of the twelfth century. After a period of nearly five centuries had passed since the disaster of 1020, in the July of 1506 the tower of the cathedral was struck by lightning, and the fire committed great ravages, but the most important and interesting parts of the building were happily saved. In 1539 the tower was again fired by lightning. Another fire was caused in 1674 by the imprudence of one of the watchmen. The last, and one of the most deplorable of the modern disasters of the cathedral of Chartres, was the great fire which was caused by accident on the 4th of June, 1836, when some workmen were employed in the tower. This calamity destroyed many important portions of the cathedral, but it spared some of the more ancient and ornamental parts. Among these, not the least important, are the interesting sculptures of the portals, which, besides their excellence as works of Art, are extremely valuable as specimens of the costume, &c. of the period.

Our first cut represents the embroidery round the lower part of an alb. An alb is a vestment worn by the priest at the Eucharistic sacrifice, and from the earliest times had nearly the same form as those in use at present. It was generally of fine white linen, though sometimes of rich silk, and ornamented with a peculiar round decoration of gold, which has long ceased to be used in any country; but whether of one or other of these stuffs, it was almost always hemmed at the bottom with a brightly tinted silken, or golden border. Among the several regal gifts made to St. Peter's by our Anglo-Saxon King Æthelwolf, when he took his renowned son Alfred, to Rome, A.D. 855, were silken albs richly ornamented with gold: *Camisias albas sigillatas holosericas cum chrysocloavo.* (*Liber Pontificalis in vita Benedicti III. t. iii. p. 168, ed. Vignolio.*)

But if, under the Anglo-Saxons, a stuff so very costly, and so rare as silk

must have been in their times, was often bestowed upon the Alb, this vesture, instead of losing, gained new splendour in the hands of the English at a later period; while linen of the finest quality continued to be, as now, the material of which it was then always made for common use,—on great occasions, and in the larger churches, it was to be seen formed, not only entirely of silk, but sometimes even of velvet and cloth of gold. But this was not all, for though white was of course its usual colour, yet we find a green, or blue, or red, or black Alb to have been occasionally worn; and Albs were not called by the name of one or the other of these dyes, because their apparels only were of that colour, but because they were tinted throughout, red, blue, or green, as the case might be.

Though there cannot now be found any rubric, either in the Salisbury or the other of our old English "Uses," showing exactly how these beautiful silken Albs were worn, yet, if it may be guessed from illuminations in manuscripts, the practice was to put them on immediately over an appareled alb of linen. As will readily be supposed, these rich albs of silk, or cloth of gold, were brought forth and used upon the higher festivals and more solemn functions only.

Our specimens seem to represent embroidery with pearls and uncut jewels set in a band of thin gold, and terminating with a rich fringe. The triangular interlacings in the lower panels are evidently symbolical of the Holy Trinity.

Our engraving on the following page represents a very beautiful Monstrance in the Cathedral at Rheims, and has been copied from the interesting publication from which we selected a specimen for our number issued in February last, entitled "*Mélanges d'Archéologie, d'Histoire et de Littérature, par Charles Cahier et Arthur Martin.*"

Pugin, in his "Glossary of Ecclesiastical Ornament," describes a Monstrance as a transparent Pyx, in which the Blessed Sacrament is carried in solemn processions, and exposed on the altar.

It is derived from the latin *Monstro* (to show), as it was in these vessels that the holy Eucharist was first exposed to the adoration of the faithful in processions, benedictions, and on other solemn occasions.

The use of Monstrances is not very ancient. Father Thiers, in a learned treatise on the exposition of the Blessed Sacrament, states that he has found it impossible to fix the precise period when the custom of exposing the Blessed Sacrament, and the consequent use of Monstrances, commenced; but as the solemn procession of Corpus Christi is not older than the early part of the fourteenth century, and as the Blessed Sacrament was originally carried in a covered pyx in that procession, it is not probable that monstrances were introduced before the end of the fourteenth, or generally used before the fifteenth century.

The ancient form of these vessels was very varied. The first, which I imagine to be the most ancient, is a tower of precious metal, with four apertures of crystal. The Celestins of Marconcy, in France, formerly possessed a manuscript missal, written in 1374, in which an initial letter D, occurring at the commencement of the prayers of Corpus Christi, contained an illumination, representing a bishop bearing the Blessed Sacrament in a tower of this description, attended by two acolyths holding lighted tapers.

2. Monstrances were made in the form of images, containing crystal pyxes. Father Thiers mentions a Monstrance of this description, which belonged to the parish church of Menechon, in Champagne, in the year



1486. It consisted of an image of St. John the Baptist in the act of pointing with his right hand to a lamb, which he held on his left arm, and in which was a pyx faced with crystal. This description of Monstrance was frequently used in England.

In the account of the solemn service at Durham, on Easter Day, we read that two monks came to the sepulchre, out of which, with great reverence, they took an extremely beautiful image of our Saviour, representing the Resurrection, with a cross in his hand, in the breast whereof was inclosed, in the brightest crystal, the Holy Sacrament of the Altar; through which crystal the Blessed Host was conspicuous to the beholders.—*Antiquities of Durham*, p. 17.

From the inventory of the ornaments formerly belonging to the Cathedral Church of Lincoln:—An image of our Saviour, silver and gilt, standing upon six lions, void in the breast for the sacrament of Easter Day, having a berall before, and a diadem behind, with a cross in his hand, weighing thirty-seven ounces.—*Dugdale's Monasticon*.

3. There are Monstrances in the form of Crosses: one of this description is mentioned in the inventory of ornaments formerly belonging to the Cathedral of Notre Dame, at Paris, made in 1439. Item, une croix d'argent doré, que soutienne deux anges, pesant en tout douze marcs, en laquelle on porte le corps de nostre Seigneur au jour du sacrement, que donna M. Gerard de Montagu, chanoine et depuis évêque de Paris.

A Monstrance not very dissimilar to the above is described in the inventory of St. George's Chapel, Windsor, given in *Dugdale's Monasticon*. Item, two standing angels, bearing a crystal pyx for the sacrament of our Lord, which is surmounted by a cross of silver, gilt and enamelled, &c.

4. Monstrances were made with a large tube of crystal, fixed on a metal foot, with a knop, and surmounted by a canopied cover of elaborate design. Of this, which was the most common form of the ancient Monstrances, there are many fine examples yet remaining, especially in Flanders. A silver one of exquisite design, executed in the latter part of the fifteenth century was presented to St. Mary's College, Oscott, by the late James Wheble, Esq., and is always used on solemn occasions.

5. The usual form of modern Monstrances is that of a radiated sun with a crystal pyx in the centre. This style of Monstrance did not come into general use until the seventeenth century, but there is an example as early as the commencement of the sixteenth century. Father Thiers cites a manuscript Gradual, formerly belonging to the Sainte Chapelle of Paris, written in the reign of Louis XII, who died in the year 1515, in which a miniature initial represents a procession of the Blessed Sacrament, carried in a Monstrance of this form, and borne on a feretrum by two priests in red cassocks, surplices and robes.

In the inventory belonging to King's College, Aberdeen, 1542:—Una Monstrantia argentea, duos cubitos prope alta (Eucharistia vulgo appellat.) ad Christi Corpus, adorationis causa a populo, deportandum incredibili arte confecta. In ea beryllum pulchrum.

Monstrance sometimes signifies a transparent reliquary. "Item, a Monstrans, w^h a relike of Sent Marten, the fote sylv^r, and gilt, and the flat edge about the relik sylv^r, and all the residue cop and gilt." Inventory of St. Martin, Dulwich, London. *Nichols's Illustrations of Ancient Times*.

The example we have chosen is obviously composed of two fragments of utensils made for other purposes, as the engraving round the crystal in the upper part is of a much later date than the stem. In fact, an engraving on the inside representing our Saviour teaching the gospel, has been mutilated by the process of attaching the one to the other. It is clear also from the date of the stem, which cannot be placed much later than the middle of the thirteenth century, that it could not have been made for a vessel which did not come into use for a long while after that period. As our chief object, however, is to give examples susceptible of application to secular purposes, we have felt that the beautiful forms and elegant details of this curious relic made it one highly calculated to supply hints for a great variety of purposes, notwithstanding a little inconsistency observable in its style, and its disagreement with other specimens of Monstrances.

The two last engravings represent the ends of a Stole, and a Maniple.

The stole in ancient times was made of sufficient length to reach almost to the feet, and to

show both its ends below the chasuble of the priest, and the still lower dalmatic of the bishop; if not always, at least, sometimes, growing wider in a slight degree at the ends. It might often



be said to be of pure gold; for that precious metal, instead of being wrought into what is now called gold thread, was drawn out into very thin

wire, and in this light but solid form was woven, with the help of a very little silk, into a kind of metallic web, leaving at proper intervals bare

spaces for the working of the figures of saints, by the needle, or the fastening on of the jewels with which it was sometimes studded.

As around the bishop's tunic, so to both ends of the stole, little bells of silver used sometimes to be fastened, in Anglo-Saxon times, there is strong reason for supposing; certain, indeed, it is that, for ages after the Saxon period, such bells, as well as delicately twisted chains of silver and of gold, having little knobs of the same metals hanging to them, and beautiful silken and golden fringes, knotted fretty-wise, to use a term of heraldry, continued to be sewed to the extremities of our English stole and maniple.

Since the end of the fourteenth century the



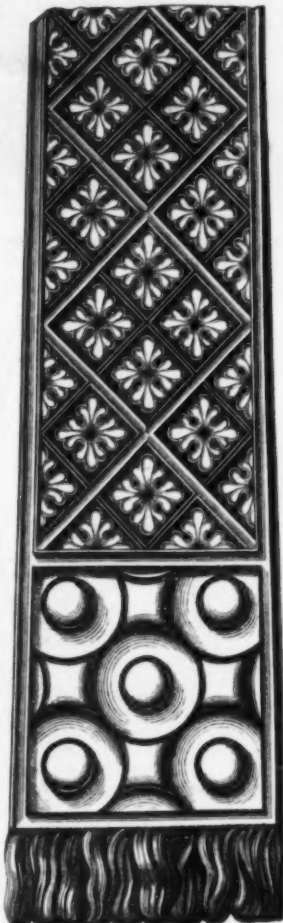
stole has always been borne crossed on the breast of the priesthood of England, when vested for the Holy Sacrifice. Previous to that time it was allowed to hang straight down from around the neck.

A few old English stoles still exist. Lord Willoughby de Broke is in possession of two; one of these is ten feet long by two inches in breadth, and ornamented with no less than thirty-eight shields of arms, on a ground alternately green and pink, worked in silk and gold. In the middle of its length, or at the part which would fall at the nape of the wearer's neck, it is marked with a cross crosslet; and from the heraldry of the bearings, it would seem to be of the date of Henry VI. The other stole is nine feet in length by three inches broad, and has this inscription,—"In hora mortis succurre nobis Domine,"—worked in large letters all down it, each letter of the inscription being in the centre of a quatrefoil, on a gold ground: at each end is a shield displaying a cross table; and in the middle of its length, the arms of Lacy, Earl of Lincoln, or, a lion rampant purple; another inscription in capital letters, but defaced, is on the lining. From the shape of the characters and the ornament, this stole seems to be of about the reign of Edward III., or the early portion of Richard II. Neither of them widens at the ends, but both are lined with linen.

The difference between the length of the stole in ancient and modern times, is very striking. Among all our national ecclesiastical monuments, either in painting or sculpture, from the earliest Saxon epoch up to the last days of Queen Mary, there is not one to be found of a priest in his mass vestments, in which the two ends of the stole are not to be seen falling down some way lower than the chasuble.

Now, however, the stoles are made so short that not even the smallest portion of them is seen below that garment.

The Maniple was at first, most probably, nothing more than a plain narrow strip of the



finest and whitest linen, more like a napkin than to the present ornament; very soon, however, it began to be enriched, here, as everywhere else throughout the western parts of the Church, and if the maniple at that time in France may be looked upon as a sample of the Anglo-Saxon one, then was that article of sacerdotal attire often made of the richest golden stuffs, and had, like the stole, not unfrequently an edging of little gold or silver bells hanging tinkling to it. The Maniple was not always worn as it is at present; for from the figured as well as written documents of ecclesiastical antiquity, we see that at first it was held, thrown over the outstretched fingers of the left hand; afterwards, it came to be borne, as now, fastened on the wrist.

The more general type of the stole and maniple was for them to run quite straight all through, yet, every now and then, examples are met with, showing the ends of both these clerical ornaments widened, sometimes by stopping short and spreading in the form of an oblong square, as in our example of a stole, and sometimes the maniple had a gradual diminution to its centre as in the one here given.

The initial letter with which we have commenced this article is taken from an illuminated bible of the twelfth century, in the public library at Rouen.

HENRY SHAW.

LADIES' WORK-TABLE.

We think it a duty incumbent on us in our desire, not only to point out to manufacturers the high road to excellence, but also to place before our readers every occasion on which that road has been successfully travelled, to call attention to the very elegant works lately produced by Mrs. Purcell, of New Burlington Street, the house formerly occupied by Miss Lambert, whose command over the needle and the pen took always an important standing in public estimation. We have been much gratified by an inspection of Mrs. Purcell's rooms, in which are displayed examples of every conceivable form of embellishment that can be secured by the needle, displayed too to far greater advantage from the lady's judicious exercise of her good taste in the composition of the various screens, frames, tables, &c., to which purposes the works are principally devoted. In the embroideries themselves natural flowers are of course the favourite feature of design, while in life-like effect of execution many of them have perhaps never been surpassed. We must not forget to mention the impetus which the Art has received from the increased study of ecclesiastical architecture and its appurtenances, nor omit to notice the choice examples of altar-cloths, pulpit-fronts, cushions, &c., which have been the result of this happy revival of artistic offerings to Christian churches.

The work-table which we have selected for engraving, from Mrs. Purcell's establishment, is a graceful union of novelty and convenience. It is of wood, partly gilt and partly coloured white, exhibiting a contrast of the most pleasing and



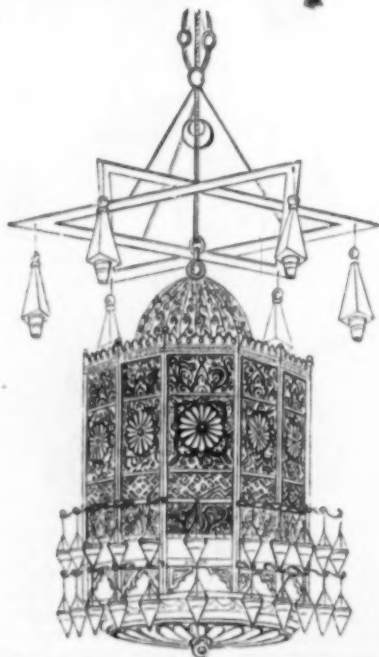
lively nature, with a crimson silk bag at the top and its depending tassels. There are many other objects in the establishment, of which, had our space permitted, we might have been tempted to place illustrations before our readers, but we must content ourselves with simply congratulating Mrs. Purcell on the right course she has pursued in the fabrication of her works.

ILLUSTRATED BIBLICAL LITERATURE*.

THERE is often as much knowledge communicated through the eye, as is acquired by any other medium of deriving information. Some things there are in which it must be the only teacher, any oral or written description being totally inadequate to reach the understanding. Hence the mass of pictorial juvenile publications which have emanated from the press during the last quarter of a century for the benefit of the young generations; and hence too, the constant appearance of similarly illustrated works addressed to children of a larger growth, who yet stand in need of instruction and of information. It is therefore unnecessary to offer any apology for introducing to the notice of our readers the two volumes which Dr. Kitto, assisted by a body of the most eminent Biblical scholars in Europe and America, has placed before the public. To the general student of history, sacred and profane, they will prove most valuable helps, nor less so to the artist requiring a knowledge of the manners, customs, dresses, &c., of the ancient and modern oriental nations. Other books of a like character have at various times been issued from the press; but this "owes its origin to the editor's conviction of the existence of a great body of untouched materials, applicable to such a purpose, which the activity of modern research and the labours of modern criticism had accumulated, and which lay invitingly ready for the use of those who might know how to avail themselves of such resources." The various branches of Biblical science comprehended in the work are—Biblical Criticism, Biblical Interpretation, History, Geography, Archaeology, and Physical Science. These subjects are carried out in their numerous and diversified ramifications sufficiently diffuse for all practical purposes, yet concise enough to guard against unnecessary loss of time, on the part of the student, in acquiring the information of which he is in search. We have taken some pains to go through the volumes, and have compared them with others of a similar nature; and the result of our investigation is, that both in plan and execution, they are all that could be desired in such a work.

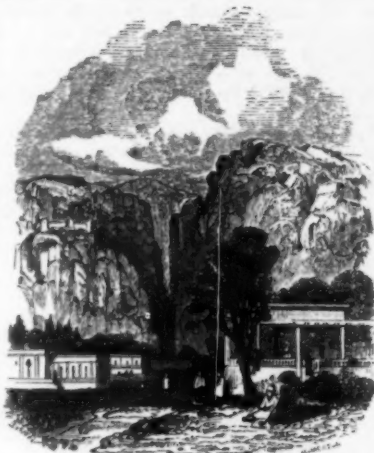
The Theology it contains is, of course, a matter beyond our purpose, which is to offer some examples of the illustrations that very profusely embellish it. Every word whereby the written text may be in any way elucidated, or to which a clearer meaning can be given by pictorial description, is explained by an engraving as here introduced.

LAMP.—Of this object several examples are given, borrowed from ancient authorities. That we have selected is one of the richly ornamented lanterns used on festive occasions, and suspended across the streets. It has numerous small lamps attached.



* A Cyclopedia of Biblical Literature. Edited by John Kitto, D.D., F.S.A. Illustrated by numerous engravings. Published by A. & C. Black, Edinburgh.

COLOSSÆ.—Formerly a city of Phrygia, now a village named Khonas, behind which rises the huge range of Mount Cadmus. There are still traces of ancient ruins in its vicinity.



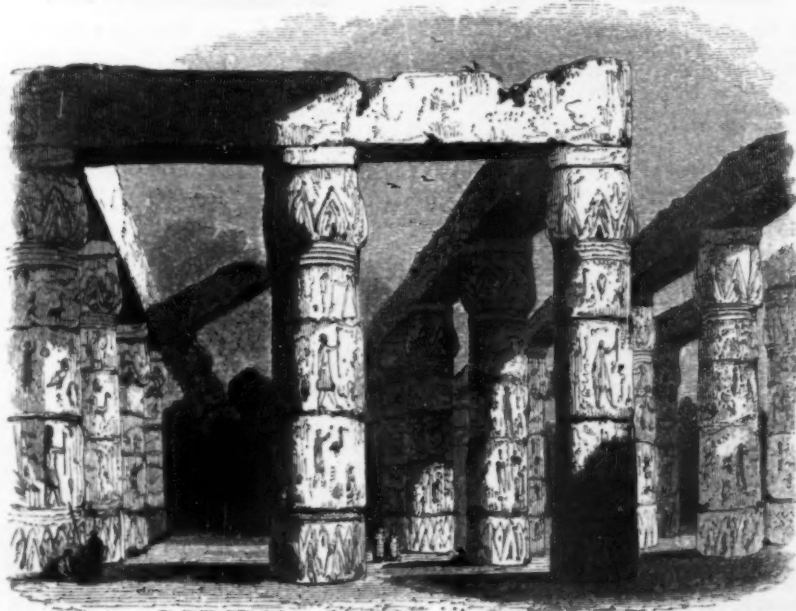
BAAL-GAD is better known to us by the name of Baalbec, or Balbec. The ruins of this once magnificent city are still famous, and are visited by every traveller who wanders into their vicinity.



CÆSAREA.—The engraving below represents an old castle at the extremity of the ancient mole. The remains of the town, about fifty miles from Jerusalem, are very extensive, but a heap of ruins.



EGYPT.—From the variety of engravings which illustrate this text, we select the Great Hall of the Temple of Carnak, next to the Pyramids, the most wonderful relic of Egyptian Art.



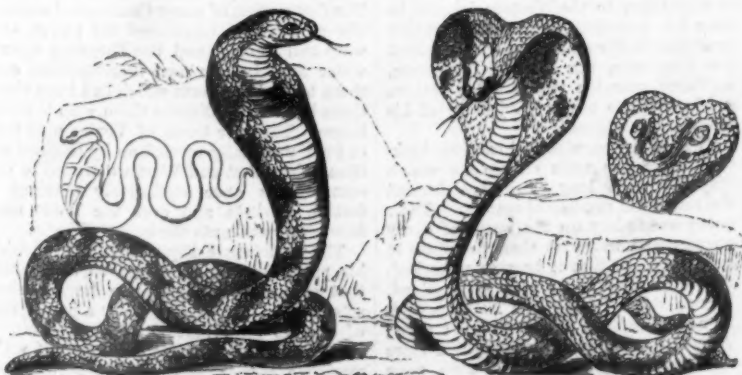
BURIAL.—Sepulchres and tombs are described under this word, which is also illustrated by several specimens. That engraved below is a modern oriental garden-tomb, over which lamps are sometimes hung and occasionally lighted.



BEDS.—A bed, with a tester, is mentioned in the Apocryphal Scripture (Judith, ch. xvi., ver. 23), which, in connection with other statements and the frequent mention of rich tapestries hung upon and around a bed, proves that bedsteads, not unlike those in modern use, were among the luxuries enjoyed by the ancient Jews of wealth and lineage.



ADDER.—The two specimens here introduced are of the genus *Naja*, respectively designated in the book before us as "*Naja Haje*;" and the form of Cueph from the Egyptian monuments;" and



"*Naja Tripudians* and *Cobra di Capello*;" or Hooded and Spectacled Snakes." Illustrations of this species frequently occur in eastern sculpture and painted decorations.

ALTARS, FORMS OF.—This term supplies abundant material for illustration, from the immense variety employed in different countries during successive epochs, both for out of door use and in sacred edifices; from the rude pile of unhewn stones, to the richly-carved altar of Christian worship. There is no doubt that the altars of the Jews, when they became a wealthy and luxurious people, and less restricted in their forms, were highly ornamental. Of these, examples are given, but we have chosen rather to select a group of designs of oriental and classical antiquities. The figures indicate to which nation they appertain:—1, 2, 3, Greek; 4, Egyptian; 5, Babylonian; 6, Roman; 7, 8, Persian.



ERES, or ÆRES, is a word occurring many times in the Hebrew, the precise definition of which is variously stated; Celsius considering it to be a general name for the pine tribe, to the exclusion of the cedar of Lebanon, while the majority of writers



are of opinion that it indicates this tree alone. Dr. Royle, who contributes the article "*Eres*," to

CROWNS, though generally applied to the ornaments worn by royal personages, are not exclusively so in scripture. The origin of this decoration is supposed to have arisen from the simple fillet fastened round the head, and tied behind; this was followed by the diadem, which, when surrounding the head-dress or cap, may be considered as



having become a crown. The forms of these crowns appear to have varied in every age, with successive generations of princes, and in a great measure to partake of the character of the nations, as symbolical of their power and wealth. The five examples here given are of modern Asiatic crowns.

The last illustration we introduce occurs under the word *ARABIA*. It represents a group of Bedouin Arabs, or as they are sometimes called in the Bible, "dwellers in the wilderness;" a pastoral but warlike people, who, in their mode of life, their food, dress, and dwellings, in their manners, customs, and government, have continued, and still continue, almost unalterably the same, from the earliest period to the present time. The history of this singular and interesting people proves an important feature in the researches of the Biblical student, as it throws considerable light on many passages which might otherwise be deemed obscure; and also exhibits, in a remarkable degree, the fulfilment of prophecies, which might otherwise have confirmed the infidelity of the sceptic.



These examples are amply sufficient to show the manner in which the illustrations to Dr. Kitto's work appear; they are upwards of five hundred in number, and are engraved in a very superior manner. The text, which after all is the most important part of the volumes, is equally entitled to commendation.

ANCIENT SHIPS.*

WE have now traced "the horses of the deep," as the old Scandinavian bards fancifully termed the ships of their own day, from the simple portable coracle, or light bark timidly pushed from the shore by a single rower with a simple paddle, through the many forms they assumed during the middle ages, until they became the great and powerful vessels, seen at the conclusion of our last paper, as used by the navy of Elizabeth. We see no perceptible difference between the latter and those constructed in the early part of the seventeenth century, the form and structure of which may be readily comprehended in our first engraving on this



page, copied from one of the maps of Abraham Ortelius, the famous geographer. The same high decks and general aspect which are visible in the "Great Harry," may also be seen here, with all that quaintness, and it must be added, insecurity, which characterised the clumsy "wooden walls" that then protected our island.

There is a striking similarity in all European vessels at this period. The general build was the same, varied only in the smaller craft by the necessities or circumstances which were the results of peculiar localities. The pinnaces and pleasure-boats, which might also be used for coasting, were of smaller but scarcely of lighter construction than the larger vessels. Ship-builders at this time appear to have chiefly considered strength, and this gave a tub-like clumsiness even to little boats. Our second cut exhibits the vessel which conveyed the Duke of Anjou



to Antwerp on the occasion of his visit to that

* Continued from page 189, and concluded.

"thrice-renowned city" in 1582, and which is depicted in the rare and curious folio pamphlet published by Plantyn at the time, and profusely illustrated by pictures of the whole ceremony. The pendant hanging from the fore-top and yard, the shields arrayed round the edge of the vessel, and the raised fore-castle and covered place for the steersman, still remind us of the older boats, and show how slowly improvements were adopted in any branch of the navy.

At this time Antwerp was the great centre of European trade. Here was deposited, as in a vast store-house, the productions of the East, and the merchandise of most other nations, from whence it was disbursed to other countries of Europe. Guicciardini has left us a curious picture of the state of trade between our own country and that famous city, then in its zenith, and the occasional residence and place of business of such merchant-princes as our own Sir Thomas Gresham, and which is a very concise and curious account of our occupation there. Speaking first of what we obtained there, he says:—"To England Antwerp sends jewels and precious stones, silver bullion, quicksilver, wrought silks, cloth of gold and silver, gold and silver thread, camblets, programs, spices, drugs, sugar, cotton, cummin, galls, linens fine and coarse, serges, demi-ostades, tapestry, madder, hops in great quantities, glass, salt-fish, metallic, and other merceries of all sorts to a great value, arms of all kinds, ammunition for war, and household furniture. From England Antwerp receives vast quantities of fine and coarse draperies, fringes, and other things of that kind to a great value; the finest wool, excellent saffron in small quantities, a great quantity of lead and tin, sheep and rabbit skins without number, and various other sorts of fine peltry and leather; beer, cheese, and other sorts of provisions in great quantities; also Malmesey wines, which the English import from Candia. To Scotland Antwerp sends but little, as that country is chiefly supplied from England and France. Antwerp however sends hither some spicery, sugars, madder, wrought silks, camblets, serges, linen, and mercury; and Scotland sends to Antwerp vast quantities of peltry of various kinds, leather, wool, indifferent cloth, and fine large pearls, though not of quite so good a water as the Oriental ones. To Ireland Antwerp sends much the same commodities and quantities as to Scotland; and Antwerp takes from Ireland skin and leather of divers sorts, some low-priced cloths, and other gross things of little value."

The house at Antwerp inhabited by the English traders is still shown, near the Town Hall of the now-decayed port. The Bourse, in imitation of which Gresham erected our first Exchange, still receives its merchants; but religious intolerance and foreign rule have for ever destroyed this noble city as a centre of European trade.

Commercial industry and maritime adventure being now uppermost in men's minds, they became an anxious part of legislative enactment. James IV. and V. of Scotland paid much attention to their navies; and the latter king, in 1540, made an expedition to the Western Islands, to tame his turbulent chieftains, in twelve large vessels, the chief of which contained the king, who, like the old Norsemen, wandered over the waters to do justice, and look to the proper subjection of his refractory chieftains.

The Dutchmen, with that cautious looking toward the main chance for which they had been long celebrated, framed their course in prudential manner. Their policy was to buy up the wares of every country, and transport them to others at great profit, so that it became remarked, that a dearth of one year in England, France, Spain, Portugal or Italy, sufficed to enrich Holland for seven years after; Amsterdam being rarely without a store of seven hundred quarters of corn, none of it the produce of their own fields, but which was thus stored to be re-sold at immense advantage, perhaps to the very growers themselves. It was the same in many other important branches of trade. They had a thou-

sand ships in the wine trade, while England had not one; it was precisely the same with timber; while our woollen cloth was exported to them undressed and undyed, to be re-shipped to other countries under the name of *Flemish Bayes*.

These anomalies could not but attract the attention of the government, and Elizabeth, with a wise policy, provided for the extension of trade; but as she grew old, and the end of her reign drew nigh, trade again decreased. On the advent of her northern successor, nothing was done for our languishing commerce, although Sir Walter Raleigh wrote his "Observations concerning the trade and commerce of England with the Dutch and other foreign nations," and in it pointed out the ease with which England might rival the Dutch in this vital matter of wealth and necessity, and plainly discovered to what circumstances that nation owed its commercial superiority. Yet during the whole of this reign English commerce remained in a languishing state, nothing being done to relieve it, or free it from vexatious restrictions and unnecessary taxations, so dear to a short-sighted and impoverished government.

It was to the exertions of private individuals that commerce was indebted for its improvement; the energy of the trader, and the wealth of the citizen being devoted to its enlargement. Private hands did then in England what they do still, and individual spirit took up the position which government should have pre-occupied. The East India Company took the lead, and having obtained additional privileges, they built, about 1609, the largest ship ever constructed for the merchant service, its burthen being variously stated at from a thousand to eleven hundred tons. This ship was named the "Trades' Increase" by the king, who, with his nobility, attended its launch, and partook of a splendid banquet, an act more within the king's capacity than taking the proper means for really making trade increase. The quarrels with the Dutch, their infamous aggressions at Amboyna and elsewhere, with which the Company had to contend, and the carelessness of the government at home, towards the end of the reign of this, one of England's most useless sovereigns, almost determined the directors to give up the whole of their Indian trade.

The Merchant Adventurers, a body whose trade consisted principally in voyaging to Germany and the Low Countries, appear to have been the most successful body of traders at this time, and numbered about four thousand individuals. Shipping began to be constructed of a more serviceable kind than before; and Gerard Malynes, in his "Lex Mercatoria," 1622, says, that in the Newfoundland fishing alone, there were two hundred and fifty ships, the united burthen of which amounted to fifteen thousand tons. One of the largest ships of the East India Company was of 1293 tons burthen; and a man-of-war, called "The Prince," was constructed in 1609, of the burthen of 1400 tons, and which carried sixty-four guns.

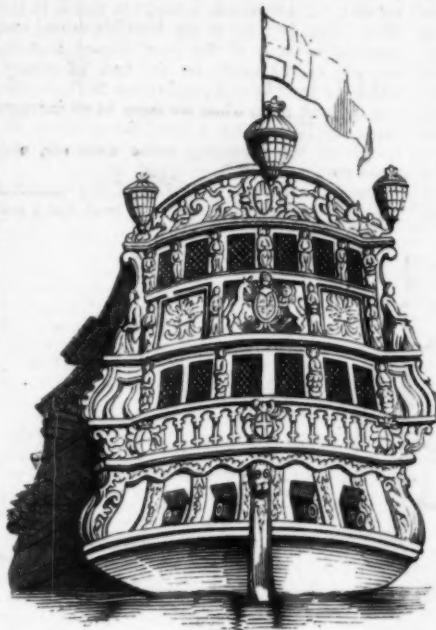
In the early part of the reign of Charles I., that monarch began to pay the attention to commercial industry which it required and deserved. The destruction of many Continental monopolies (for so must be considered the powers of Antwerp and Venice), and the throwing open of a wider field to our own merchantmen enabled them to trade to ports which had been closed to them before, and dispute them with their neighbours. Thus the trade of Venice with the rest of Italy was really carried on by England at this time, while East and West we traded in various commodities once exclusively obtained from foreign markets, and even the Turks received from our merchants the spices of India.

The unfortunate disputes between Charles and his parliament, which ended so disastrously to that sovereign, occupied too large a share of attention at that time, to allow a proper amount of care to important naval regulations. The first great event which connects itself with our maritime glories, is the noble heroism of the Admiral Blake during the ascendancy of Cromwell. With true patriotism and noble single-mindedness, that wonderful man looked but to the glory and pre-eminence of his own country as sovereign of the seas, and was free to fight

conscientiously for that alone, irrespective of the source from whence that order came. An enemy to tyranny at home, whether exerted by Charles, Cromwell, or the parliament, he held himself responsible only to do his duty by his native land, and act like a brave sailor and a free-thinking member of the community; his mind unshackled by prejudice, his hand free to defend his opinion. The navy has ranked among its commanders some of our purest and noblest patriots, but none worthier than Blake.

The victory this true-hearted man gained over Van Tromp, in 1653, is among the most remarkable on record. After his little fleet had been conquered by the powerful Dutch Admiral, whose vessels far outnumbered his own, he restored his ships with wonderful celerity, and, nothing daunted, sailed forth toward Tromp, whom he met in the Channel, nearly opposite Weymouth, and set on him as a mastiff would on an unwieldy bull. Tromp had, when the action began, about seventy-six men-of-war and thirty merchantmen, most of the latter being armed; these he placed in his van. Blake had, at the same time, but thirteen ships "to begin with," but a few others, delayed by adverse wind, joined him. With their aid a furious fight began; and in the course of it the Dutch lost six men-of-war, which were either sunk or captured by the English fleet, who lost not one vessel. So far the first day's fight was successful. The next day the action recommenced, and after hard fighting, more merchantmen were captured in Tromp's squadron, which kept up a retreating fight toward Boulogne, and ultimately one of his best ships was boarded by Captain Lawson. Night again stopped the battle, which was again renewed on the next morning, and continued

brave Dutch Admiral Van Tromp have put to sea in 1653, when he placed a broom at his



mast-head to declare that he would sweep the English Channel free of all opponents; and with

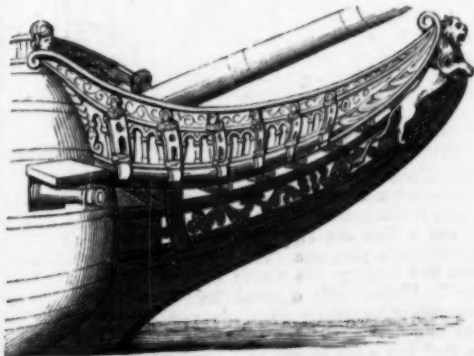
the ship that the utmost amount of decoration was lavished; and our engraving shows how richly that portion of the vessel was ornamented. The royal arms and badges of the kingdom formed part of its heraldic display. Caryatides of quaint form supported the various stages; seated figures, emblematical of commerce or victory, decorated the side galleries; while nymphs and tritons, mounted on sea-horses, filled the pediment above. Enormous poop-lanterns crowned the tall erection, above which floated the banner of England. The imposing majesty of this portion of the ship must have been very striking; and the old engravings which represent them, when closely viewed, towering above the spectator, and the little boats around, are extremely picturesque, and possess all the elements of grandeur.

The head of the vessel had also as much decoration as could well be given to it: our cut, at the bottom of the page, will show how tastefully it was sometimes sculptured. The same style of ornament is here carried out, but there is a degree of lightness imparted to that style which is appropriate and agreeable.

Such were the vessels of the Cromwellian Era; a few years passed, and he and his gallant Admiral slept together in the burial-place of kings. His son, weak and unfitted for the government, quietly gave place to the exiled Stuart, as weak but more vicious than himself. One of his first acts was to disinter and hang at Tyburn the body of the Protector; an act of pitiful revenge, but one that party-feeling might excuse. But what tongue or pen shall dare to defend the dastard spite, that dragged the courageous and honest Blake from his grave with ignominy? One of the bravest of the brave, who had fought conscientiously for his country alone, who had never allowed his actions to be swerved by puritan or cavalier, but steadily asserted the supremacy of the seas, might surely have been allowed a quiet grave in the old Abbey of Westminster; a few yards of honoured space in the country he had helped to save for a debauched and unprincipled king.

The maritime history of Charles II. is as disgraceful as the political one. The country was soon sold for a pension to the French king, and a determined system of aggression on all constitutional rule was perseveringly pursued while Charles lived. Tyranny went hand in hand with corruption, and the degraded state of the country toward the conclusion of this reign, politically as well as morally, can only be fully understood by the historical student, and would scarcely be credited by those who only know Charles through the pages of the novelist and dramatist, as the "Merry Monarch." Such merriment, like the hideous grin upon a skull, excites similar repugnance.

A twelvemonth after his restoration, Catharine of Braganza came to England as the wife of Charles II. There is a very curious and rare series of engravings by a Dutch artist, named D. Stoop, which depicts the ceremonial obser-



vances connected therewith; from one of these we obtain the representation of "the Duke of York's Ship," which is engraved on the other side.

till four in the afternoon, when Tromp escaped to Calais, favoured by the wind; and the fight ended with Blake's victory, after three days' struggle, in which he lost many men, but only one ship, while he had taken or destroyed eleven ships of war and thirty merchantmen, killed 2000 men, and captured 1500 more.

The form of these Dutch ships of war is clearly shown by the pains-taking and accurate Hollar, who has etched several of them with all that minute truthfulness which makes his works as valuable to the antiquary as they are acceptable to the lover of Art. The heavy build which characterises these vessels, and which, to the present day, has been a distinguishing feature of the ships belonging to this nation, is here visible. With great strength is combined much clumsiness, and these unwieldy "monsters of the deep" might have been sorely surrounded by smaller and lighter vessels, as they lay like logs upon the water, unable to make those rapid movements which the less imposing but more useful barks might accomplish. Like the famous Invincible Armada of the days of Elizabeth, these Dutch vessels were scarcely a match for the evolutions and perseverance of the English men-of-war.

In such a vessel as that just depicted may the

120 sail, determined again to face the heroic Blake. That noble Admiral stood out to sea with his ships prepared for all encounters; and one of the Dutch captains imagining this to be a flight, eagerly desired Tromp to follow up the flying fugitives. But Tromp knew his enemy better; and he calmly replied, "Sir, look to your charge; for were the enemy but twenty sail, they would never refuse to fight us." He lived not through the battle, to again bear such testimony to British valour. He was shot in the encounter, amid the close and furious contest which waged between the combatants; and his fleet, struck with a general consternation at his death, speedily retreated, after a loss of thirty ships. Blake returned home with only two of his vessels destroyed; and Cromwell was freed from Dutch opposition on the ocean.

At this time it was usual to bestow much labour and cost on the decoration of ships. The ingenuity of the wood-carver carried out the taste of the ship-builder, and enriched the vessel wherever it was possible. It was upon the stern of

It is a capital example of a ship of the period; and the reader will observe that it is decorated with carved work at the stern, of a similar kind to that which we have exhibited in our previous cut. We need scarcely remark that the Duke was the Lord High Admiral of England, and that this vessel may therefore be received as a good specimen of a first-rate man-of-war. The print from which it is copied represents the meeting of the royal navy with the Spanish ships in the British Channel.

The smaller kind of vessels in use at this time partook of the character of the larger ones. The same heavy build is discernible among

by tickets no one would cash. The Diary of Pepys, who was Secretary to the Admiralty, paints a sad picture in a few plain words. He writes: "Did business, though not much, at the Navy Office, because of the horrible crowd and lamentable moan of the poor seamen that lie starving in the street for the lack of money, which do trouble and perplex me to the heart; and more at noon when we were to go through them, for then above a hundred of them followed us, some cursing, some swearing, and some praying for us."

Charles's reprisals had more of the nature of piracies than fair fightings. He sent out a few

sail above; the entire front of the vessel, as well as the carved stern and side galleries, are all different from what we now see. The long pendant streaming in the wind from the main-top, reminds us of the picturesque glories of "the Great Harry," or the fleets of Howard, Drake, and Raleigh; but independently of these few features, the improvements which had appeared in ship-building do not make this vessel differ much from those in which Rodney and Nelson fought.

The prints delineating the embarkation of William III. and his landing at Torbay, the best of which were executed by the Dutch artist, Romain de Hooge, represent similar vessels to this, as those which attended that sovereign, whose happy advent gave freedom to our laws and institutions, and clearly defined the prerogatives of prince and people. During his reign we see but little alteration in the form of men-of-war. They had all that heavy Dutch build we have seen in our previous cuts, and the same sort of structure is visible until the middle of the reign of George III.

From the period of the accession of William III. until the present time, an abundance of authorities for the accurate delineation of vessels occurs. Prints are extremely numerous and inexpensive; and the naval picture gallery at Greenwich, or the rooms at Hampton Court devoted to such paintings, will furnish numberless examples. The necessary reduction of such vessels to our pages would render them of little use; and it is not advisable to do so, when artists may easily avail themselves of these excellent sources of information. The object of this series of papers has been to collect and engrave such ancient examples of ships as are scattered through a variety of illuminated manuscripts of the early ages, seals of towns and admirals, or other sources not so readily available; and which involves a great degree of trouble to unpractised searchers, who are not in the habit of going to such sources for information.

We, therefore, at this point conclude our labours. We have started with the wicker boats of the early Britons, saw them superseded by the victorious galleys of the Romans; succeeded by the fanciful barks of the Saxons and the "cockle-shell boats" of the Normans; tracing the improvements in their fittings as warships in the middle ages, with their painted sails and "panoply of pride," until they became the picturesque but unwieldy "monsters of the deep" which carried "Bluff King Hal" to his French friends, or Howard on a less friendly meeting with the Armada. The present paper takes up the thread of narrative and illustration, exhibiting the heavy and highly wrought vessels of the



them: from the series of prints just named we now copy "the Duke of York's pleasure-boat," and its general construction will at once be seen to be very similar to the more important vessel. The windows are decorated with carving and gilding, as are the sides and stern of the boat. The royal standard flies at the stern; that of the Admiral at the mast-head. It is "the yacht" of the seventeenth century.

The state of the English navy toward the end of the reign may be gathered from the fact of the reprisals made by the Dutch in 1666, who came into the Downs under the command of De Ruyter with a fleet of eighty sail and many fire ships; and sailed forward with impunity, blocking up the mouths of the Thames and Medway, destroying the fortifications of Sheerness, spreading consternation at Chatham by

ships to capture the merchant vessels of the Dutch, which were coming home richly laden from Smyrna. But by these attempts he gained nothing but disgrace; the vessels were too strong for him, and war being declared soon afterward, in the first engagement the Earl of Sandwich and nearly all his crew perished by the fire ships of the enemy, and the Duke of York narrowly escaped the same fate. The combined fleets of England and France fared as badly in other engagements, and De Ruyter repulsed them in three regular engagements. At the close of Charles's reign, England had lost its power on the seas, but the French king, whose paid pensioner he was, had a large and effective fleet at sea.

A first rate man-of-war of this period concludes our series of cuts. It is copied from a print of



their appearance there, while others of the fleet penetrated nearly to Gravesend. The money which Parliament had voted to pay seamen and fit out a fleet, the king had spent in his own discreditable pleasures. The consequence was, that the country was totally unfit to defend itself. Upnor Castle, opposite Chatham, had no gunpowder to defend the docks, and some of our best ships were taken or burned. The fact is, that but a few second and third rate ships were in commission, the others were unprovided with powder and shot, and the streets were filled with starving sailors, who were paid

1680, and is a very excellent specimen of these "bulwarks of the ocean." The nautical reader will perceive many variations in the build of these vessels and those of our own time. The form of the bowsprit with its small mast and



seventeenth century, and carries our inquiries up to the great revolution of 1688, after which time, authorities for the painter are common.

F. W. FAIRHOLT.

THE GOVERNMENT SCHOOL OF DESIGN.

WHERE there are so many attacks, anything in the shape of defence will have, at least, the charm of novelty, if no other merit. Not that we have any intention of advocating at all hazards, nothing of the kind; but we venture to appear in behalf of the School of Design, in the absence of a more able defender, simply because we are convinced that the establishment has been most gratuitously traduced, and, as it would appear, not with the best of motives.*

The long looked for Report† of the Special Committee of the House of Commons, has now been some time before the public. This report has, in several quarters, been received with anything but courtesy; it is, in fact, too impartial for the mere partisan, and perhaps too general for the genuine advocate of the schools. Appended to this report, however, is another, a Rejected Report, and upon this we have a few remarks to make.

It would have been strange if such a masterly digest of the evidence, as that unique pattern-book, the *Journal of Design*, terms it, had met with any other result. The chief fault of this draft report is, doubtless, that it is too masterly; the evidence is, certainly, well sifted; not one sentence favourable to the School has been left in the sieve, nor has one adverse statement escaped it; the sifter deserves great praise for his dexterity, but, unhappily, this very dexterity seems to have rendered the document "unparliamentary." Though one or two members might be imposed upon by this plausible sifting, it is a moral impossibility that a whole parliamentary committee could be so misled, and its rejection can be no matter of surprise to any one who may have leisure and inclination to compare any page of it with the evidence itself; perhaps, so one-sided and unjust a document was never before presented to any committee of inquiry at the House of Commons.

The upshot of all this sifting appears to be, that the Schools of Design will never be of any use to the community until a "well paid" deputy-president be appointed to control the whole working machinery of the Schools. This is the scheme of Mr. Henry Cole; and the chief feature of this rejected report is its constant bearing on the evidence of this witness, from which, indeed, it makes long extracts, and evinces altogether an irresistible propensity to fatter its most hostile paragraphs.

Before we leave this rejected report, we will venture to notice two passages in it, especially concerning us. In page 23 of the Report, &c., under the head "Lectures," occurs the following statement:—"Your committee can hardly feel surprise in learning that the *abstruse nature* of these lectures does not appear to have excited much interest in the country schools;" and lower down, "It is obvious that such lectures must be much too erudite to benefit the average class of students at the provincial schools; and your committee have great doubts of the propriety of their continuance."

The *animus* of these extracts is apparent; the source of the *animus* is not so apparent; and here certainly the writer seems to have brought his imagination into play: the offensiveness of these lectures is in their assumed *abstruse nature* and their erudition; at least it is "obvious" in the imagination of the writer that they are too erudite for the Provincial Schools.

The lectures in question were the first two of a course, on the History, Principles, and Practice of Ornamental Art. One on Egyptian ornaments as applied to decorative Art and Manufacture, and the other on Greek ornaments, previous to the time of Pericles, as applied to decorative Art and Manufactures.

The various ornaments were not only described as to their peculiar characters, uses, and names, but drawings of all, from the best sources, were exhibited to the students. And it is this exhibi-

tion and explanation of ornaments, it appears, that constitutes the *abstruse nature* of the lectures which rendered them unintelligible to the students of Ornamental Art "in the country schools." This is asserted without any reference to evidence; and no evidence whatever of this nature was offered to the committee. Here, too, then the writer displays his imaginative qualities equally as much as in the matter of the *abstruse nature*; both have been imagined. Imagination is all very well, especially in a dull climate like ours, but like other good things, it has its place, and that is certainly, not even the draft report of a Parliamentary committee. The loose observation attributed to a late master of the Manchester School, that "no one understood the lecture" there, which he could not possibly substantiate, appears to be the sole foundation for this broad assertion with regard to all the country schools; that those lectures are *obviously much too erudite for provincial students*; and it is considered a sufficient reason for making a formal recommendation to Parliament that the lecturers should be forthwith dispensed with.

With regard to the implied imputation on provincial intellects, our experience has taught us that the provincial audiences are fully in every respect as intelligent and attentive as a metropolitan audience, and, indeed, have generally evinced more interest and curiosity at the conclusion of the lectures; which have hitherto averaged very large attendances.

But now to the more important matters of this paper, the objects and uses of the School of Design with regard to the manufactures of this country, and the public taste in general.

Though a great mass of evidence has been adduced in favour of the School, a considerable proportion of the witnesses out of the few who were examined, have implied that the School, as regards its fundamental object, has proved a failure; and it is this portion of the evidence only that has been taken notice of in the public prints. We do not propose to examine the evidence at present, but rather to speak generally to this impression, and to point out some of the great difficulties the School has had to contend with. That they have been great, must be evident from the constant agitation and changes to which the School has been subject almost from its foundation; and yet with all these efforts, it is alleged the School has "not hitherto produced any decided impression on decorative manufactures, either in the execution of them, or in the creation of original designs for them" (*Rejected Report*, p. 15). This appears a remarkable result after so much government support and national co-operation in the form of local subscriptions and advice; a result still more remarkable when contrasted with the very different fruits of the unaided labours of a single individual in the same field, according to the testimony of this same *Rejected Report*, p. 11, where it is stated that Mr. Cole (Ev. 2043, &c.), "adduced several instances before the committee, proving almost the generation of new branches of ornamental trade which had been created by his Art-manufactures;" that is to say, of FELIX SUMMERLY'S ART-MANUFACTURES. Mr. Henry Cole and Mr. Felix Summerly being designations of one and the same individual.

No wonder that Mr. Henry Cole, having met with such extraordinary success in his own Art-undertakings, should feel himself qualified to set the Government right in its efforts, which have had so very opposite a result (?). This is only another corroboration of the old proverb, *Too many cooks, &c.* Many have failed, while one has been pre-eminently successful!

Every man, it seems, no matter what his occupation, considers himself fully competent to judge in matters of Art, in general, and of the operation of Schools of Design, in particular. Each new school as it was established, was simply a new array of schemes and opinions—to reconcile all these schemes and duly credit all these various opinions, has been the no easy task of the management of the Schools of Design. Not only have different localities given birth to opposing schemes, but the most diametrically opposite systems have been insisted upon at different times in the same locality.

The great complaint at present is, that the schools are not *manufactories of patterns*. Now what was the feeling of Manchester in the beginning of 1843? This will be best answered by an extract from the Report of Mr. Dyce, who officially visited the Manchester school in that year:—"The prejudice that exists against the introduction of pattern designing as a branch of instruction is so strong, and so much connected with views of self-interest on the part of those who, on the whole, are the best supporters of the school, that it seems to me useless to contend with it. A notion has possessed them, that it is proposed to convert the school into a sort of manufactory of patterns, and this they

have set their faces against with such determination, that I was given to understand, the least hint of such a scheme would be followed by the withdrawal of every member of the committee connected with the printing trade. A little explanation seemed to remove this misapprehension, but still the prejudice against pattern designing, as a branch of instruction in the school, remained; there seemed therefore no other course than to limit my suggestions to such improvements in the conduct of the school as the committee were prepared to adopt."

However different the *present* agitation may be, here is a very strong case of a local committee interfering to obstruct the very practical and excellent system established by the central committee of the schools. The primary object of all the local or provincial schools was that the advantages of a knowledge of ornamental design should be brought to bear immediately upon our staple manufactures; that is, that in each locality, the exercises of the pupils should be more especially directed to that class of design best calculated to further the local trade; and no sounder principle could possibly be adopted.

It does not at all follow that because a school prominently teaches one branch, that all others are to be neglected. Every man turns his mind to some one subject in particular, but he does not by this wholly neglect all other subjects; and it is only by this subdivision of labour that any substantial progress whatever is made; the general advancement is but an aggregate of special advancements, and it is to the local schools of design, that, as sound theorists, we must look for the general improvement of the ornamental character of our manufactures. Let each do its part, and the whole will be found to be not wanting—but if each locality attempts to remedy the defects, or supply the wants, of all; or because it cannot do all, wrap its talent in a napkin and be content to do nothing; then indeed is the establishment of provincial schools of design futile.

"Schools of Design" and academies of the "Fine Arts," have two distinct objects in view; as one cultivates Art for its own sake, while the other cultivates Ornamental Art for its express application to specified purposes. Thus a school that might educate good artists might at the same time be wholly unfit to educate even a very ordinary ornamentist. There are hosts of forms with which the good ornamentist must be familiar, which do not come into the category of "Fine Art" at all—as leaves, flowers, plants, stems, corals, shells, insects, reptiles, minerals, crystals, geometrical combinations and forms; and the various conventional modes of treating all these things in the different localities and ages, where and when such things have exerted the ingenuity of man. Now to suppose that by teaching a man to draw the human figure you have sufficiently qualified him to practise as an ornamentist, is something equivalent to supposing that by teaching a boy his A B C, you have done all you can towards educating a Socrates or a Newton.

The teaching of the human figure is no greater part of the education of the ornamentist, than the teaching to read is of the education of the man of letters.

It is well to teach the drawing of the human figure; it is a good exercise for the eye and the hand; but do not let us suppose for a moment that when we have gone so far we have gone far enough. If our object is to stock society with a legion of bad artists, to the exclusion of the ornamentist, then is this a good system. It is high time that the vulgar notion should be exploded, that when you have taught a boy to draw you have given him all the essential of an ornamentist's education—as well might we infer that, teach a lad the conditions of manufacture, and you have made him a pattern designer; or teach a child a good round-hand, and you have made an author of him—a good author, perhaps, of *pot-hooks and hangers*; but our literature would not be much benefited by such authors. As the author must have something to write about, so must the ornamentist know what to design—writing and drawing are the mere elementary mechanical processes.

It has been often imputed to our "Schools of Design" that they are mere nurseries for the Royal Academy; an imputation which proclaims aloud the very wrong appreciation of these institutions which prevails. According to the present system of Art-tuition, which consists simply in instruction to draw and to paint, the artist's education really leaves off where the ornamentist's ought to begin; so that it would be a much more legitimate order of things if the Royal Academy were one great nursery for the Schools of Design, instead of our Schools of Design being so many little nurseries for it.

* Although we publish, without hesitation, the views and opinions of Mr. Wornum, we by no means adopt them entirely as our own. There are two sides to every question; and Mr. Wornum claims the right to be heard, not only because of his position in connection with the School of Design, but as an accomplished gentleman, whose experience cannot fail to qualify him for the task of judging as to the difficulties which surround the school, and as to how far they have been overcome, or otherwise. And we consider that a publication such as ours ought to be at all times open to the advocates of both sides on any question of public interest. In political journals this principle may not be always attainable. A certain measure may have to be pushed at all hazards; and a particular party may have to be supported at all costs. No such obstacle stands in our way; and it will be our continual duty to give to our readers the means of judging for themselves so as to arrive at truth.—Ed. A. J.

† The Report from the Select Committee on the School of Design; together with Proceedings of the Committee. July, 1849.

This evil might be easily avoided, by having no elementary instruction going on in the Schools of Design themselves, but let Government Elementary Drawing Schools be established in every large town, and let the students be drafted from these to the School of Design in the nearest large manufacturing town where such an institution may be established. One hundred good designers would be infinitely more valuable than ten thousand of inferior capacity. As quality is admitted to be better than quantity, it is evident that fewer institutions well supported by elementary schools would be much more efficient than many Schools of Design actually choked by the mere elementary classes.

We admit the value of the division of labour in other matters of education, why not in the education of the ornamental designer? Establish elementary drawing schools where pupils may be taught to copy, and copy well, what is before them; the human figure or any thing else; then if they are disposed and qualified, let them be admitted into the School of Design. These schools would not be expensive establishments, as there would be no occasion to employ expensive masters. The present system is bad in principle and bad in economy; for a master assumed to be qualified to teach much higher things, and paid to teach higher things, is so much occupied in superintending the more elementary drudgery that he has neither strength nor time to teach that which he was especially engaged to teach—ornamental design; a great injustice to him, and to those pupils sufficiently qualified and willing to be taught ornamental design: unjust to the master, because he has no proper opportunity of developing his qualifications; and unjust to the pupil, as he is left to teach himself what he was led to believe he would be well instructed in. The master is not to blame for this, for the school is, in nearly every case, literally choked by the elementary class, and the great object of the institution is most effectually frustrated. Where there is a building large enough, the Elementary School and the School of Design might be under the same roof, but never in the same apartments; they should in no wise interfere with each other; and they must, of course, be under separate masters: with a proper inspection, the Elementary School could not go far wrong. There is, however, no occasion to connect these two schools; they could only be connected in some cases, as the Elementary Schools would have to be at least four times as numerous as the Schools of Design, already more numerous than need be, if restricted to their specific functions—the teaching of Ornamental Art.

Of course, the aggregate number of students in the Schools of Design would be materially diminished, to the very great advantage of the schools. The 3000 pupils of the provinces might be reduced to 300, or even less, while the numbers in the Elementary Schools would considerably increase; and if they did nothing else more immediately practical, would at least engender a more general taste for Art; and thus greatly contribute towards creating a demand for what the Schools of Design are destined to supply—works of taste in all branches of manufacture, and thus elevate the feelings and add to the contentment and happiness of the people at large.

At present some fifteen or twenty gentlemen have the very arduous task of teaching 3000 pupils all the complicated processes of drawing, decoration, and design for manufactures, and this in many instances at salaries so low that they cannot afford to give more than one-half of their time to these enormous classes. Under such circumstances such men must be more than human if these institutions fully satisfied the ostensible object of their foundation. With so many difficulties to contend with, it is really wonderful that so much has already been done. Even Mr. Henry Cole admits that "the beneficial influence of the schools may be already traced in the improvement of design in certain classes of manufactures; and he can bear personal testimony to the fact, that several of the rising ornamental designers of the present day have been pupils of these schools." (*Report, &c., App. P. 13.*)

But Mr. Cole demands still more from these young institutions, from these twenty gentlemen. "It has appeared to me that a working system might be devised, whereby the schools might be made to produce designs for those articles which are used in the several government departments, the Navy, the Army, the Office of Works, &c. &c.; and that the articles might be introduced in the ordinary channels of trade, independently of the school."

It is not enough then that twenty gentlemen should have to teach three arts to three thousand individuals, in the half of the time that they have to spare, but they must superintend the designing

of all articles of manufacture, required by the Army, the Navy, the Board of Works, &c. &c.; must know exactly what the Army, the Navy, and the Board of Works may happen at any moment to require; must at any moment supply the wants of the Army, the Navy, and the Board of Works, &c.; and not only this, but must put themselves into communication with all the manufacturers of the kingdom, to explain to these gentlemen or their agents, what it is that they are to manufacture for the said Army, and Navy, and Board of Works, &c. The scheme does not say whether these gentlemen are to see that the articles are manufactured agreeably to the designs furnished by them, but probably that is understood, as they are responsible for the designs.

As to converting the Schools of Design into pattern-shops, there could not be a more impracticable scheme. Manchester alone consumes 30,000l. worth of patterns in a single year; add to these what are used in other towns, and this will give some idea of the enormous amount of designing required to be carried on, and the space required in the schools on such a scheme, even supposing the schools executed only one-tenth of the patterns required.

And, of course, as the pupils of the schools are not accomplished designers, but very tyros in Art, whatever designs are produced must be the work of the masters. It is assumed that when a student becomes a competent designer he leaves the school, and commences to glean what he can by his labours in the world. The duty of the School ends with teaching the art, and developing the capacity of designing. It has nothing to do with either the selling or the manufacturing of designs, any more than it is the business of our universities to sell essays or print books. Those who can write essays do so on their own responsibility, and provide for their manufacture or publication as they can, without calling their schools or colleges to account if the speculation should not turn out very profitable. Competition in designing must ever be as free as competition in literature. The schools cannot teach designers and maintain them too; which they would literally do if they kept them in the schools to work; and carried their designs to market for them.

Again, as regards the application of designs to manufacture. Was it the power of production or the ability of application that this country felt the want of? The innumerable designs which were annually applied to our manufactures, show that the ability of application was not that which this mechanical country required, and which Schools of Design were established to foster. Our manufacturers knew well enough how to apply designs; the designers, even, required no aid in this matter.

What the manufacturers required was better designs because, it was alleged, they could not compete with other countries in the market of the world, with goods which were chiefly recommended by their ornamental character. Their best designs were procured from France, yet it seems a still greater development of Ornamental Art was thought necessary; it was not thought sufficient to compete with the French with their own weapons, though acknowledged to be far superior to ours, but something of a still higher character of design was required. How was this to be accomplished?—by the establishment of Schools of Design, for it was found that those countries which excelled in the ornamental character of their goods had long had these useful establishments. The superior texture of English goods was formerly sufficient to give them the preference in the market, but this mechanical quality was eventually superseded by the foreign manufacturers, in the very superior ornamental character of their goods, a result of the slow development of the operation of Schools of Design. There was no question as to the manufacture itself, but its design; little was to be gained by merely importing foreign designs, but much might be gained by establishing rival institutions in this country and by rearing at home a race of accomplished designers of our own—and Schools of Design were established, not to show the pupils the use of a Jacquard loom—which was sufficiently well understood already, but to produce ornamental designs of a higher character than had been produced up to that time. It was not how to apply a design, but what to design, that was the great desideratum hoped to be attained by the establishment of Schools of Design. The great business of the schools therefore is clearly the teaching of Ornamental Art; and this can be done only by a thorough investigation of its principles and examples, and a student who has once mastered these will not be deterred by any difficulties of their application to manufactures; it is not more difficult to apply a good design than a bad one.

Designers have for ages contrived to overcome

this difficulty of the application, while the difficulty of producing good and elegant designs has hitherto been too remote for them even to attempt it. While the accomplished knowledge of Ornamental Art may be a matter of five years, the mere mechanical process of application is, in comparison, a mere matter of five hours. No wonder then that while one has been familiar, the other has been ever far distant.

It is just this state of affairs that the Schools of Design will change; their great business is the teaching of Ornamental Art; with increased means and greater accommodation they might show also the processes, but this will ever be a secondary matter. The schools are doing much and will do more; we have no right to quarrel with them because they are not perfect. Their defects are not of their own creating, because they arise almost exclusively from a want of means, and this want has been impressed upon the Parliamentary committee of inquiry, as we find from the following recommendation:—"Your committee desire strongly to urge upon the house the necessity of increasing the annual grant for the support of Schools of Design." What other faults they have is chiefly from an attempt to please all parties, which has brought them very much to the plight of "the man and the ass." They have come out too soon, before they were matured—and because some defects are evident, their merits have no credit. This is perhaps nothing uncommon in popular justice; but if a man give a beggar a crust of bread, he would be very much surprised to be kicked, because he had omitted to butter it. Yet this is very much the treatment the management of the Schools of Design has received for the efforts already made.

That the schools have done some good even their opponents admit. The system on which they are working is sound; and they require only more means and the separation of the elementary classes from the classes of Design or Ornamental Art itself, to fulfil the highest expectations that were formed of them. It is their misfortune that they have come so much before the public, for they have been seriously injured by it; it is, however, not the first time that valuable institutions have suffered from the officious meddling of incapable persons.

R. N. WORNUM.

Oct 10, 1849.

MICHAEL AND SATAN.

FROM THE GROUP IN MARBLE BY J. FLAXMAN, R.A.

THE subject of this noble group of sculpture represents the Archangel trampling on the Spirit of Evil, as described in the Book of Revelations:

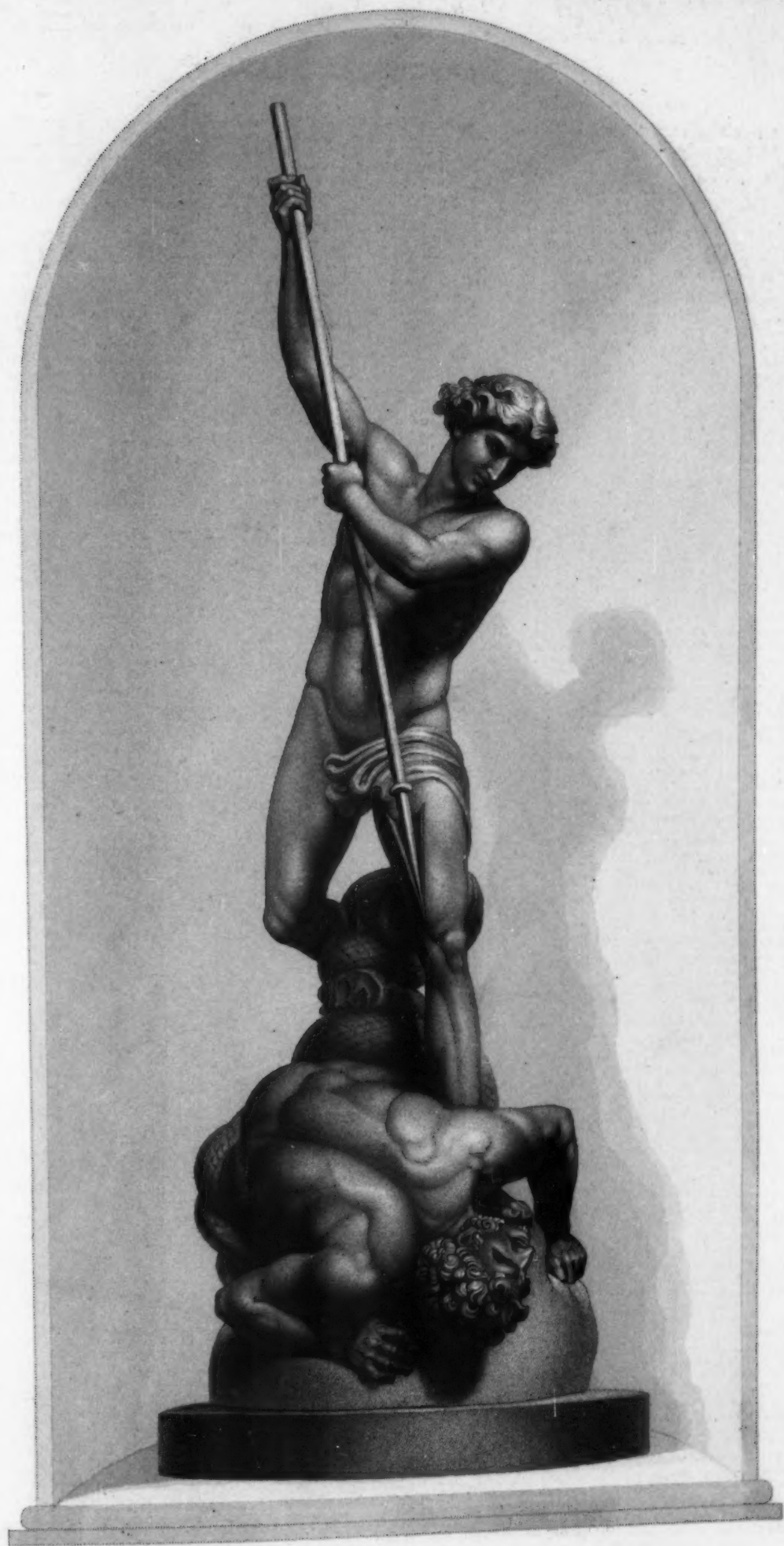
"And there was war in Heaven; Michael and his angels fought against the dragon, and the dragon fought and his angels."

"And prevailed not; neither was their place found any more in Heaven."

"And the great dragon was cast out, that old serpent, called the Devil and Satan, which deceiveth the whole world; he was cast out into the earth, and his angels were cast out with him."

The design of this subject, at once so bold and magnificent, is borrowed from the well-known picture by Raphael; but though it cannot thus claim the honours of originality of conception, it may be adduced as a work of amazing power, so far as the carrying out of the idea is concerned, which could only have been done by a master-mind. Yet it must not be supposed that our great countryman was incapable of composing a group of sculpture equally lofty in character with that here engraved; his powers of invention and design, as manifested in works legitimately his own, leave no doubt on the question. Notwithstanding, however, what some may regard as detracting from the merit of this production, it certainly stands forth as one of the greatest of the English school, and may take its place worthily beside the best examples of ancient or modern Art.

The execution of the group in marble was the result of a commission given by the Earl of Egremont to Flaxman, and it now stands in the mansion at Petworth. It is of colossal size, measuring, from the top of the rock, eight feet and one inch. The figure of the Angel, in its original position, is six feet and four inches in height, but, if erect, would measure somewhat more than seven feet. The spear is longer than that seen in the engraving, part of the upper portion being taken away to bring the subject within the limits of our page.



MICHAEL AND SATAN.

FROM THE GROUP IN MARBLE BY FLAXMAN, R.A.
ENGRAVED BY W. ROFFE.

22 JU 52

22 JU 52

NEW STYLE OF ORNAMENTAL
PAINTING ON GLASS.

SOME specimens of a very interesting process by which ornamental works of a superior order may be produced, and which are peculiarly applicable to all those purposes for which papier-mâché can be employed, and some others, have been submitted to us by Mr. G. W. Pettitt, now under an engagement with Mr. Lane of Birmingham. The process, as it is described to us, is in itself so curious, displays so much ingenuity, and gives evidence of so large an amount of careful experiment, that we have much satisfaction in introducing it in the inventor's own words:—

"I give you part of the method whereby fac-similes of engravings are obtained:—By subjecting the engraving to chemical action, a thin layer or film of ink spreads itself over the surface of the engraving, attaching itself to the marks of the engraving only, the blank spaces being left perfectly white. The ink can be deposited on the engraving from the faintest tone, through all degrees to the most intense; that is, according as the ink is deposited, so is the fac-simile either faint or strongly marked; every line receives the ink, from the fine lines in the sky to the black masses in the foreground, each line according to its intensity. It is then passed through a solution, which takes all superfluous grease from the paper, and leaves the lines of the engraving clear and sharpened; it is then carefully laid on damped blotting-paper, which absorbs all moisture from the blank parts of the engraving, and leaves the engraved parts as wet as when just come from the press; it is then gently laid on a prepared stone. Blotting-paper perfectly dry is placed over it, and the whole is put under a press for twenty minutes, or a little more; the engraving is carefully removed, and the fac-simile remains on the stone perfect in all its parts; the light and dark parts being as forcible as those parts on the engraving. When the fac-simile is on the stone, copies are printed from it in a similar manner to the lithographic printing. Impressions are then taken from the stone on paper, and from paper to the glass. You will perceive that I have only sent you impressions from wood-engravings, but the same principle exists in respect to steel-line engravings, requiring, of course, a greater nicety of action through all the process. I have tried a steel-engraving, and with perfect success, though the time taken with steel impressions is thrice that of a wood-engraving, the latter being done in a few hours, the other perhaps in a day, or a little more."

The fact of inking an impression from an engraving on paper was so curious, that we made further more particular inquiries; in reply to which we have received an impression of a wood-engraving so inked, and some copies of engravings, produced by simply rubbing off the ink from one piece of paper, by hand, on to another. We thought the ink might have been softened, and thus rendered easy of transfer, but we are assured—"The ink on the engraving (say a page of the *Art-Journal*), is thoroughly hardened, after which the film of ink is deposited on the lines of the engraving, leaving the blank parts uninjured. No matter how elaborate the design may be, every line receives a deposit of ink, according to its strength, from the faint lines in the sky, to the more forcible ones in the foreground; the method of giving the deposit constitutes the invention or secret. The ink being hardened on the pure engraving first, the fresh layer leaves the engraving for the stone, so that the engraving is but slightly injured. Twenty impressions have been taken from the engraving itself without visible injury, every impression being the result of a relayer of ink on the engraving; that is, the process has to be repeated, for each impression; fifty could be so taken from the engraving itself before having it produced on the stone, but where quantity is wanted, of course, the stone is adopted from the first fac-simile. You will see that by so repeating the process, a half-dozen stones might be covered from one engraving, all fac-similes, by which much time would be saved."

Impressions being thus obtained on glass, Mr. Pettitt has a peculiar process of painting in opaque and semi-transparent colours, and some new features of decoration, which combined produce a very pleasing effect. Mr. Pettitt's object is to introduce his process in connexion with papier-mâché ornamented works, such as folios, desks, screens, panels, tables, &c., and we trust that he will be successful. A more interesting style of decoration we have seldom seen, and as such we recommend it strongly to notice. It appears to us susceptible of many improvements, which will naturally present themselves as the process is pursued with a mercantile object.

THE EXPOSITION OF 1851.

MUCH progress has been made during the past month in reference to this project: meetings on the subject have been held in several parts of England: the result is reported to have been everywhere highly satisfactory.

The great event of the month, however,—an event pregnant with mighty issues—is the meeting which took place at the Mansion House, London, on the 17th of October;—the Right Hon. the Lord Mayor in the chair, supported by a very large proportion of the intelligence and wealth of the Metropolis. The resolutions adopted, and the names of the Committee appointed for carrying them out, will be found in our advertising columns.

A circumstance of scarcely less importance, and almost equally auspicious to the movement, is the strenuous and hearty support it receives from the *Times* newspaper. In two leading articles the plan has been advocated with powerful eloquence and sound argument; and we cannot do better than transfer these articles to our pages. They have, no doubt, been read universally throughout the country; but in the columns of a journal—teeming daily with topics equally general, interesting, and often even more exciting—they may be forgotten where they ought to be remembered. It is a theme for sincere congratulation to the British manufacturer, to the Society of Arts, and to the nation, that this great organ of public opinion has thus early taken the matter in hand; not only with a view to help and sustain the project, but to guard it from those perils to which it cannot but be liable, even from the magnitude of the undertaking, and the numerous and mighty interests it involves.

"The proposal submitted, at the suggestion of Prince Albert, to the magnates of the city is one against which nothing but its grandeur can be objected. An exhibition of the industry of all nations speaks for itself, if it can only be accomplished without signal failure or inequality of execution, and if, as has, indeed, been suggested, it is not engulphed by its own magnitude. Its desirableness is evident from the numerous attempts which aspire and converge in the grand and comprehensive idea embodied in the present design. Our British Association has its ambulatory exhibition of Physical Science and Mechanical Art for the city favoured by its presence, and for the few who can follow its wanderings. Our Agricultural Associations have shows of prize cattle and implements. The Society of Arts deserves to be more extensively useful than it is. We have museums for natural history, antiquities, geology, the spoils of India, and the curiosities of war. The Hudson's Bay Company, and even the Missionary Societies, have interesting collections. Our great manufacturers are glad to exhibit to customers not only the beautiful results, but also the ingenious processes of Art. Distinguished or wealthy foreigners see everything that is to be seen, and often turn to valuable account the tracings of their memories or their pencils. Our young people learn a good deal at the Polytechnic and other similar exhibitions. A mere walk from Piccadilly to Cornhill is an exposition of manufacture as instructive as showy. Nor can it be said that in London there is any jealousy of foreign ingenuity and taste; but, notwithstanding all these opportunities, it is confessedly difficult, besides being a matter of time and expense, to obtain a good survey and estimate of our present industrial state. With abundance of money in his pocket, with a vacation at his command, with some knowledge of the arts, with good introductions and fortunate opportunities, and by dint of much travelling, walking, and talking, a man may contrive to learn a good deal; yet he will be sure to miss even more than he sees. In fact, he wants a guide, and that guide, under existing circumstances, must be a preternatural one, for he must know everything, and be able to bring everything within the compass of mortal locomotion and inspection. If such is the case when a man with plenty of appliances and means devotes himself to the task, what must be the case of those who have less leisure or means? And if British industry at present is more multifarious in its operations than one man can learn, what must we say of the industry of the world?"

"The example has already been set by our neighbours. The exposition in the Champs Elysées this year, and those at Berlin, Brussels, and other cities of the Continent, are successful models which

our greater opportunities will enable us to improve on. Even the Russians in their annual fair at Nishni Novgorod have shown us the way. It was from such fairs that Arts and Manufactures derived their chief support in ages when the intercourse of nations was not such a daily and hourly affair as it now is. We might, indeed, go further back, and take a hint from the periodical games of antiquity, which we know were as much the gatherings of merchants, of artists, of philosophers, and of poets, as of pugilists and of charioteers, and their vulgar admirers. There is nothing new under the sun. The idea is universal as well as old. What we have to do is to apply the idea in its noblest and most appropriate form—in the words of the critic, *proprie communia dicere*. Nothing can be so proper to London as an exhibition which shall represent the genius and invite the attendance of all nations. This peaceful metropolis is the asylum of the outcast and unfortunate. All parties find refuge here; the Absolutist here meets his Republican foe, and the Imperialist the rebel to whom he is indebted for his own exile. We have recently opened our ports to the produce and the ships of all nations. What place so appropriate for the mutual aids and intercourse of peace as this free and open metropolis? what office so proper to London as the reconciliation and improvement of the civilised world, now unhappily distracted and thrown back? Our immunity from war qualifies us for precedence in the operations of peace. This is but a peace congress, as a worthy alderman observed. When nations meet often on the neutral ground of Science and of Art, they are the less likely to misunderstand one another's sentiments. We may smile at conventions of the human race, from that of ANACHARSIS CLOOTS to that which lately met at Paris, surrounded by fortifications and a hundred thousand men. We have no particular affection for the visits of allied Sovereigns and their victorious marshals. Such events seem out of the natural and beneficial order of nature. Not so the peaceful and happy reunion of the arts which tend to the present comfort and improvement as well as the eternal welfare of man.

"What more is wanting to the success of so grand and so useful a design than the auspices of royalty, the zeal of science, and the substantial encouragements of enterprise and wealth? The pecuniary amount of the prizes, not to speak of their glory, is certain to allure all nations to the arena. In that universal competition it is impossible but that all will mutually impart something of their several excellencies; England her mechanical ingenuity, America her boldness of invention, France her unequalled delicacy and novelty of taste, and even the least and lowest nation its traditional crafts and household lore. Nothing is more certain than that England may learn as much as she can teach, and requires the stimulus of emulation as well as the most sluggish and laggard of her neighbours. So far everything promises well for the utility and success of the exhibition. But all depends on one point. A leak will sink a vessel, and the thickest beam will break if one part be unsound. All will be thrown away, unless by the choice of high and honourable names, secure from the very imputation of jobbery, of partial bias, or of narrow views, the conduct of the exhibition and the award of the judges shall obtain the confidence and submission of the world. It is no every-day matter to decide between the conflicting claims of different nations, arts, and minds, and to settle whether the discoverer, the artist, or the manufacturer deserves best of his species. Such is the task, however, to be imposed on the judges in this instance; and therefore we urge no precipitate, no casual, no interested, or otherwise dishonest selection."

"As far as it is possible to estimate a design of almost formidable novelty and magnificence, we are of opinion that the country is indebted to Prince Albert for an important move in the development of its genius and resources. The pacific congress which he has proposed to the world is, on many accounts, the very thing we are in want of. Supposing it to be conducted with ordinary judgment, and to meet with moderate patronage and success; supposing also that other nations take up the idea, and that every year sees a great congress of arts in one metropolis or another, we anticipate benefits peculiarly fitted to our national deficiencies. We are an island and want international communication. Our merchants and gentry go abroad upon business or pleasure; but the great bulk of the people know the nearest nation of the continent only by name. Industrious and ingenious as our countrymen are, they want some of the qualities which contribute not only to intellectual elevation, but even to commercial success. Large sums are annually lavished in the vain attempt to create a school of taste, yet at this moment our manufacturers are obliged

to pilfer French patterns, and think themselves eminently successful when they disguise the invention of Paris and Lyons without spoiling them. As a general rule, our native manufacturers have no resources except a beggarly dependence on foreigners, a servile adherence to classic and other conventional forms, and the merest imitation. Our position, our mineral wealth, our machinery, our commerce, and the inexhaustible energy of our race, enable us to carry all markets before us, and to force our commodities on the world; but the want of native taste is a continual drag on our efforts, and entails severe losses in a market continually affected by the caprices of fashion. Now, just as manners are learnt in good society, and morals among the virtuous, so taste in all its branches can only be acquired by communication with those who possess the precious gift, and by familiarity with their works and ideas. No amount of solitary thought, no effort of unassisted industry, can make a man, a good Christian, a good poet, a good artist, or a good anything else. He must condescend to be helped; and if this is true of the relation between man and man, it is not less true of the intercourse of nations.

"There is scarcely an article that could be mentioned in which our sterling qualities do not turn to less account than they should do—all for want of the graces. Our manufactures are cheap and good—often too good, as they only perpetuate ugliness. Our furniture is calculated to last for centuries, but is generally insipid and heavy. The wood may be well-seasoned, the lines may be straight, and the corners right angles. The drawers may fit, and doors may be well hung. What is more, the lock and key do their duty. But the whole is a mere stupid repetition, line for line, of some vulgar model, of which there are ten thousand too many in the world already. In any third-rate French town there are dozens of cabinet-makers whose politics may be rather loose, and whose workmanship may not be always trustworthy, but who at the price of the London article will turn out a real work of imagination. For comfort and for use we might prefer the home goods, but if we wish for the occasional refreshment of an agreeable object, or covet a poetical air for our apartments, we should find it much cheaper to import. It is the same with every other sort of manufacture. From millinery to men of war, from rockets to lighthouses, from cookery to tactics, from bonbons to triumphal arches, our neighbours surpass us in the science and the taste necessary to bring these things to perfection. As for us, it must be confessed that we live by 'sucking their brains.' The tortoise beats the hare. Our dogged resolution serves us for genius, and we reap the crop which others have sown. Such we say is our case for the most part. We have amongst us extraordinary instances of science, genius, and taste; but as a general rule, there is more of these qualities in a French operative than in an English employer."

The *Times*, although the most powerful, is by no means the only journal from which this great project has received advocacy: indeed, we have reason to believe that every public organ throughout the Kingdom will be active and ardent in its support. We expected as much—and some years ago foretold as much—whenever a proposal for a National Exhibition upon a sound basis should be made to the people of these countries.

This month we do not consider it necessary to extend this article by any remarks of our own. It will be our pleasant duty—every month for many months to come—to report the progress of the Society of Arts and its allies in the proceedings for holding this great "Peace Congress," and to stimulate manufacturers to the arrangements necessary for properly upholding the Exposition and extending their own renown. Let them not postpone these preparations: it is notorious that in France long intervals ensue between Exhibitions, chiefly in order that the exhibitors may have sufficient time to produce the objects they desire to exhibit: the time allotted to us is short, but it is not arrogant to assume that British energy, enterprise and capital, may effect in one year and a half as much as the manufacturers of the Continent can effect in thrice the number of months: it will be obvious, however, that no time is to be lost."

* We shall ourselves act upon this principle; and cannot be premature in inviting communications from Manufacturers with a view to enable us to report extensively and worthily the Exposition of 1861. It will be, no doubt, our

We have marked in italics two or three passages from the *Times*: it will be at once obvious to every intended contributor that a guarantee for pure impartiality and integrity must be assured. If the project fail to obtain the entire confidence of the manufacturer and the public, it will, to a certainty, fail: a very small error may be as fatal as the pebble in the horse's shoe. We re-quote the passage from the *Times*, inasmuch as it is the only source from which peril can by any possibility arise:—

"All will be thrown away, unless by the choice of high and honourable names, secure from the very imputation of jobbery, of partial bias, or of narrow views, the conduct of the Exhibition and the award of the judges, shall obtain the confidence and submission of the world."

We have no reason to anticipate any danger on this head, but the magnitude of the interests involved will make all persons nervously sensitive—it may be, even unduly suspicious—on the subject. For our own parts, we may say that it was this apprehension which induced us to withdraw from pushing the matter farther than the correspondence we held regarding it (and to which we have heretofore made distinct reference,) with several members of her Majesty's government. It seemed, and still seems, to us, above all things necessary, that the conductors of such a movement should be free from the remotest suspicion of being influenced by personal and interested motives.

ART IN THE PROVINCES.

NEWCASTLE-UPON-TYNE.—The anniversary meeting of the School of Design, under the patronage of Government, was held in October, in the Society's Rooms, Market Street, and was numerously attended, both by local patrons, and pupils of the establishment. W. Ord, Esq., M.P., presided; and among the company were Mr. Saville Ogle, M.P., Mr. Hutt, M.P., the Worshipful the Mayor of Newcastle, Mr. Crawshaw, Dr. Headlam, and others connected with the manufactures of the district. The walls of the apartment were covered with drawings, executed by the students, including those for which prizes were awarded; and the sculpture-room contained a number of well-executed models. A beautiful picture, "The Triumph of Love," painted by Mr. David Scott, the brother of Mr. Scott, the superintendent of the School of Design, was exhibited, and excited much interest and attention.

The Report, which was read by Dr. Greenshaw, appears of a highly favourable nature. It alludes to an intimation from the Board of Trade, that the Government intends to withdraw its support from the School, a purpose, however, which the Board had agreed to re-consider, on the representation of numerous parties interested in the success of the School; and which, it is now hoped, will terminate

duty to engrave a very large number of the objects exhibited; and this will be more than difficult unless we are enabled materially to lessen the labour by obtaining drawings and procuring engravings "beforehand." We desire to devote, each month of the coming year, a part of our Journal to such works, in progress or executed, as are designed to be contributed to the Exposition; and with this view we require the co-operation of the manufacturer, our ultimate plan being to collect the whole of the engravings thus accumulated, and to re-issue them as a guide to the collection when entire—a project which it would be impossible to carry out except in parts, which parts will be subsequently combined as a whole. We shall thus be enabled to represent the Exposition as it ought to be represented—and to place it worthily before the world. In order to accomplish this object we shall during the coming year visit, or revisit, the leading manufactories of the kingdom. While, therefore, we shall report the present position and progress of each, and make immediately known the best works that each has produced, or is producing, we shall obtain the manifest advantage of preparing without haste or want of finish, a full and ample report of the Exposition, completed, in the end, by the addition of such objects as will have been fabricated expressly for it. We thus hope and expect best to aid a movement we have earnestly and zealously advocated during the last five or six years—to the accomplishment of which we presume to say we have in no slight degree contributed—and the anticipated success of which is a large reward for our anxious and continued labours.

in its favour, especially since Mr. R. N. Wornum has delivered his course of lectures there, at the desire of the Government. With respect to the number of students attending the classes, it is satisfactory to find the Newcastle School maintains a prominent place, and that the past season has been an advance on former years, although the attendance has always been remarkable for number. During three winter months it amounted to 108, each month being an increase on any previous season, and, indeed, requiring the services of an assistant to aid Mr. Scott in the labours of tuition. The attendance was likewise more permanent than heretofore, and up to the close of the classes in July it was more steadily maintained. The committee regret to find a considerable deficiency in the funds; but they are persuaded that the measures they contemplate, particularly that of the removal of the School, will rectify the deficiency; and they have further in contemplation to hold a fancy fair and sale of works of Art, on an extensive scale and under the most influential patronage of the north of England, which will effect, if carried out in the manner anticipated, the result desired, by freeing the Society from their present incumbrances. This fancy fair will be particularly appropriate to an institution for the furtherance of Ornamental Design and Fine Art.

Mr. Hutt, M.P., in moving that the thanks of the meeting be given to Mr. W. B. Scott, the master of the Newcastle School, alluding particularly to the painted glass-windows manufactured in the town, stated that "he had lately had an opportunity of seeing one in a beautiful church in Worcestershire. On expressing his admiration, and inquiring of the attendant if it had been obtained in London, 'No,' said he, 'we could not get it in London; we were obliged to send to Newcastle!' He hoped such reputation would not be confined to painted windows, nor to any particular article, but would extend to the various articles manufactured in connexion with the Arts established in this town, so that they might have an opportunity of hearing those who wished to obtain the best specimens say, 'we must send to Newcastle for them!'"

Mr. Crawshaw, another speaker, said, "he had lately visited the British Museum, and on applying for admission to the statue room, the attendant inquired if he knew anything about the School of Design in Newcastle? He replied that he was a member of the committee. Then said the attendant, 'I shall be happy to show you everything, for the best of our young men come from Newcastle.' When, in the British Museum, where young men came to draw from all parts of the country, such an observation was made, it reflected the highest degree of credit on the students, and proved the excellent mode of tuition practised by Mr. Scott."

Such testimony is highly flattering to those who manage here; and must operate strongly as an encouragement to future success.

THE VERNON GALLERY.

THE FIRST EAR-RING.

Sir D. Wilkie, R.A., Painter. W. Greenhach, Engraver.
Size of the Picture, 2 ft. 5 in. by 1 ft. 11 in.

THE name of Wilkie has been as familiar to the lips of the present generation as "household words," and the numerous engravings from his pictures are a sort of *Penates* in the dwellings of thousands; it would therefore be a superfluous act to criticise now the works of one so universally popular. In the words of his friend and biographer, Allan Cunningham, Wilkie "was the most original, and vigorous, and varied of our British painters; the darling artist of the people, learned or illiterate, for he spoke to all degrees of knowledge, and to all varieties of taste." This panegyric is both true and just, and will be recognised as such so long as the canvas endures which reflects his genius. But however highly we may estimate its versatility, his fame will most assuredly rest on that class of works whereon it was primarily founded.

The "First Ear-ring," though one of the painter's own familiar subjects, would perhaps scarcely be known as such at first sight, except to those who had studied his works in their infinite variety; there is comparatively less of subject in it, and its execution shows much of that free manner which Wilkie had gradually adopted. The scene lies in a richly-furnished apartment of a mansion, wherein are assembled a lady with her young daughter, and a more elderly female, who may probably be intended for a "maiden aunt." The latter is the operator, and is evidently desirous of performing her duty as tenderly as the circumstance of the



SIR D. WILKIE, R.A. PAINTER.

W. GREATBACH, ENGRAVER.

THE FIRST EAR-RING.
FROM THE PICTURE IN THE VERNON GALLERY

SIZE OF THE PICTURE.
2 FT. 6 IN. BY 1 FT. 10 1/4 IN.

LONDON: PUBLISHED FOR THE PROPRIETORS

PRINTED BY W. DAY

22 JU 52

case will admit; yet the action of the child, in clasping her mother's hand, and her nervous look, show a feeling of pain, real or imaginary. The group is charmingly composed, and the points of the subject not to be mistaken. A capital episode in the tale, is the little spaniel scratching his ear, as if in sympathy with his young playmate. The work bears the date of 1835.

It has been previously engraved of a larger size by Mr. Chevalier for Mr. Alderman Moon, whose courtesy with reference to our own plate we beg to acknowledge.

OBITUARY.

MR. ROBERT STAINES.

When, last month, we presented to our readers Mr. Staines's engraving of "Malvolio," we little expected that it would be the last with which his name will be associated; or that we should so soon be called upon to fulfil the painful duty of announcing his decease.

Mr. Staines was born in London, on the 21st of October, 1805. He acquired the rudiments of his art under the tuition of Mr. J. C. Edwards, a distinguished line-engraver, with whom he had as a fellow-pupil, Mr. Hatfield, whose works are also favourably known to the public. It appears, however, that nearly half the term to which his articles of apprenticeship extended, was completed in the studio of the Messrs. Finden, in whose establishment he also passed ten or twelve years as an assistant, executing several plates in a highly satisfactory manner, though his name is not attached to them; there were others subsequently published with his name, principally after Richter, Westall, &c., in the "Literary Souvenir," and the "Friendship's Offering." Those works, however, on which his reputation must rest, are the two from the "Vernon Gallery," which have appeared in the *Art-Journal*—"Sancho and the Duchess," and "Malvolio." These are highly creditable to his talent; they exhibit a good sound style of workmanship, united with very considerable true artistic feeling; qualities which, had his life been prolonged, would, without doubt, have soon ripened into higher excellencies, especially as he had felt himself stimulated to increased exertion, by the conviction that his name was associated with a great national work, and, consequently, that it had become widely and favourably known. Mr. Staines had already commenced for us two other plates from the "Vernon Gallery," and we may here express our sincere regret at being deprived of the assistance of one, whom we esteemed not more for his professional talent, than for his amiable disposition, and remarkably gentle and unassuming manners. The character of his life was irreproachable; indeed, we may go farther and say, it extended beyond the fulfilment of mere moral duties to those of a higher and purer nature, so that "his end was peace."

Naturally of a delicate constitution, an attack of diarrhoea and dysentery, commencing about the middle of August last, so far undermined his strength, that he gradually sunk, and died on the 3rd of October.

Mr. Staines was three times married, and has left three orphan children (his last wife being dead) to lament his loss.

COPYRIGHT IN DESIGNS.

SIR.—Permit me to congratulate you on the honour accruing to you in the beneficial results, already evident, of your (nationally important) efforts to stimulate our ornamental manufacturers to improve their designs by employing high Art in their productions; they are under great obligations to you both for counsel and the monthly presentation of superior and original subjects. I feel I need not apologise to you for earnestly requesting your able advocacy of an immediate change in the law for protecting Copyright in Designs. It is open to two prominent objections, viz., the term of protection being too short, and the charge for registration too great; the former should be extended to seven or ten years, as the short period for which articles are now shielded, barely allows time to get them well introduced into the market, and I cannot imagine that any bad effects would result from the extension I propose. I presume when the Government fixed the present registration fees, it was calculated merely to cover the expenses of the office; but there can be no doubt that the reduction I propose, in the greatly increased number of designs registered, would prove a remunerative change, and consequently not objectionable as creating a charge on the public exchequer.

BIRMINGHAM, October, 1849.

ORNAMENTOR.

MINOR TOPICS OF THE MONTH.

THE EXPOSITION AT BIRMINGHAM.—The Birmingham Exposition, which we reported at length in the *Art-Journal* for October, still continues to attract its thousands of visitors, affording another striking proof of the value of such collections in directing public attention to the state of our manufactures. It is another great "fact" in confirmation of that for which we have so long contended—it will aid powerfully in educating the public mind, and in preparing it, and manufacturers generally, for the great Exposition of 1851. As we have already stated, it is the most gigantic, the most perfect, the nearest approximation to what an Exposition should be, which has yet been brought together in England. It has delighted the public, and not a few sales have been made in consequence. It has removed from the great manufacturing capital of England the reproachful application of the term "Brummagem," and it cannot fail to show that everything sold in the great metropolis is not "town made." It has developed the resources of the "toyshop" of Europe, and introduced not a few deserving individuals to notice. If it did nothing more than this, it did well; but it has done more; and we cannot but doubt that the healthful spirit of emulation it has called forth will operate for good. We have heard resolutions made which we doubt not will be carried into effect. Daily and nightly are the rooms crowded with attentive and inquiring visitors, canvassing the respective merits of the specimens exhibited, and the excellence of the rival manufacturers. Since the exhibition opened, 25,000 individuals have paid for admission; but in addition to this, the associates and members of the British Association visited the rooms free of charge. 14,000 season-tickets have been sold, and upwards of 3000 catalogues disposed of. Cheap trips from Leeds, Derby, and the Potteries have also visited the Exposition. The single admission has now been reduced to afford all classes an opportunity of visiting the collection, and we will not speculate on the good which may be effected by the Exposition, to the working classes generally, of the best works by the best manufacturers. In no district is the claim for education in artistic knowledge more paramount or necessary; in none is there a greater deficiency of good authorities to which the artist-mechanic can apply. Throughout the length and breadth of Birmingham there is no collection or museum to aid in stimulating the fancy, or educating the ideal faculty. We can only hope that a good surplus arising from the present undertaking may be swelled by liberal contributions, and a foundation laid for a permanent local museum, which shall contain within its walls some works by the old masters in design as applied to manufactures, with not a few of the best works of to-day. Such a collection would be invaluable in a town like Birmingham, where fertility of invention and artistic execution are so much connected with her manufactures. That the power and ability are present, we doubt not; that the will ought to be, is also most true; and we do most earnestly hope that a time so auspicious and apposite will not be lost to take a decided step in that which would operate so much to the advantage of the country. All experience proves that it is not the accidental exhibition of what is excellent which will effect a revolution in the public taste, but the daily and hourly contact with the same, which is to effect satisfactory results. All art, all history, is prolific of proof to this effect; from the age of Pericles until to-day we have so many evidences of it. England is certainly the most parsimonious of nations in this respect. While France has her Louvre, her Versailles, her Tuilleries, and her Place la Concorde, England can boast no such assemblages; the consequence thereof is paucity in design, feebleness of execution, and limited power of conception. If we are to be a great minded people we must be a liberal one, and we must not count our pence, but spend freely our pounds. The time is at length come when the almost complete annihilation of time and space render it dangerous for us to remain ignorant. The facilities of travel will transfer the demand to

others better educated in the art of design; that we have much to learn is true, but the sooner that education is begun by which our errors are to be amended the better. The time is come; let the men of Birmingham then strike home; a permanent museum should be established to second the working of these schools of design. To a surplus, if any is left from the Exposition, let them add liberal subscriptions, and call in the aid of the Local Museum Act. A collection of some value could thus be brought together, which would effect much good alike to the public, the manufacturer, and the artisan.

PLATE-PRINTING.—Some weeks back, Mr. S. Leitch, long known in Edinburgh as a highly skilful lithographer, called to submit to us various specimens of engravings which had undergone a novel and very important operation. In the course of Mr. Leitch's experimental researches in the process of lithographing, he has discovered a method whereby prints on common plate paper were transformed into what seem to be India-paper impressions, by the mere application of a chemical composition. It may not be generally known that the printing on India-paper is performed by its being simply laid on the ordinary white paper when damp, and the pressure of the machine causes the two to adhere without the application of any adhesive matter. This process is open to many objections, the principal of which is that, in course of time the India-paper often becomes detached in parts, the print is blistered, and consequently half-spoiled; this is obviated by Mr. Leitch's method; his composition entirely penetrates the surface of the paper, so that there is no possibility of removing it. But the most striking feature of the invention is the power of applying it to engravings that have been a long time printed, and by which they are restored to much of their original purity, as it appears to bring out such parts as have become deteriorated by age, and clears away damp-spots and other injuries. Another advantage is that the process completely fixes any work recently printed, so as to prevent the setting-off, as it is termed, or rubbing, and it likewise gives greater brilliancy to, without diminishing the delicacy of the engraving, and lastly, it is cheaper than the ordinary method of printing India-proofs. All this manifest superiority entitles Mr. Leitch's discovery to serious consideration; the value of India-proof engravings over those on common white paper is too well known to require comment; if therefore what is equal in appearance, and superior to them in point of endurance, can be obtained at a less costly rate, the importance of the invention cannot be too highly estimated, as it may be applied to every style of engraving, whether in line, stipple, or mezzotint, and the deception, if such it may be termed, would almost defy the most practised eye. We at first had our doubts as to the efficacy of Mr. Leitch's process, and to test it forwarded to him, at Edinburgh, two plain impressions from a plate of the "Vernon Gallery" series which had just been placed in the printer's hands; Mr. Leitch shortly afterwards returned them to us as India-paper impressions, in different tints, but so closely resembling those which our printer had taken off on the veritable India, that we could not detect the slightest difference, even to the apparent raw edge always discernible in the latter.

MACHINE ETCHING FOR PREVENTING FORGERY.—Many plans have from time to time been proposed for the prevention of forgery. Mr. G. F. Sturm, of Granby Street, Hampstead Road, forwards to us some specimens of what he calls "machine etching," which appear to be very ingenious. Of the character some idea will be formed by the following description as given by the projector himself, it being understood that the designs are traced by a machine, the order of which is varied at the will of the operator. The scheme proposed is an operation that may be called "machine etching;" it is intended to produce designs mainly depending on mental application and close attention, consequently, no machine of itself, as usually worked, could possibly produce an imitation. The least mistake or inattention, by making a false movement, would spoil the whole work; and if allowed to remain, would in some measure serve as a key

or clue to produce a similar design; if any accident occurs, though just finished, the whole must be recommenced. Defects or repairs that may not be visible when printed in ordinary black ink would be liable to become very perceptible if printed in certain colours; if a small addition of simple contrivance be applied, the machine may be so arranged as to produce designs much more difficult to counterfeit: printing them in two distinct and separate colours from one or two plates, mechanically combined would make it utterly impossible to transfer otherwise than in the combined colours, which would then reprint in one colour only. It is submitted to have "machine etchings" as large and as delicate as may be considered most convenient, as it would cause them to be much more difficult to imitate, and to have them done on case-hardened steel. The designs could be varied ad infinitum; such is the unlimited capabilities of production, that a distinct design might be arranged for every year, month, or week, and still an uniformity of effect be maintained: it might also be extended so as to indicate the sum or value of a note; medallions, portraits, and various objects can be produced by "machine etching," and introduced into the designs with considerable advantage; it would be impossible to remember exactly how to reproduce any of them after a time, or after several have been done, unless memorandums are preserved. Some might possibly be reproduced by guess, if tried for, but this would be very uncertain.

FORGED PICTURES.—This subject, to which allusion was made in our last number, we are by no means inclined to lose sight of, the more especially, since, both personally and by letter, we have received several communications urging us, by every means in our power, to trace the evil to its source, and destroy its root and branch. This it is our fixed determination to do, but it is necessary to proceed cautiously and deliberately in a matter which requires due care, in order that our object may not be defeated, or the desire to bring the guilty to punishment recoil upon the heads of those who attempt it. To convict a thief or a swindler in a court of justice, something more is necessary than even the strongest suspicion of his crime, there must be the fullest proof of guilt; and however satisfied our minds may be that we are cognisant of the parties who have been the agents in the fraud practised upon Mr. Herring and other artists, as well as on the public, we must be able to substantiate our charges in the clearest manner to guard ourselves against the chance of an action at law, which would assuredly follow a failure on our part. As we stated before, we are in possession of names which we will most assuredly make public so soon as we can do it with safety. This is a duty which the public, as well as the honest dealer, has a right to demand from us, and in the performance of it we know that we shall be seconded by the public press. The *Times* has spoken out well on the subject; and in the *Globe* of some days back, there appeared an excellent leading article, from which we quote the following extracts:—"It is patent to all that this mean trade in counterfeit originals exists to the prejudice of Art, and to the shame of the miserable men whose necessities lead them to this prostitution of their talent."

If we pause to trace back to its birth a spurious REMBRANDT, from the discolouring of the canvas to the final glazing and baking of the picture, we cannot but be struck with a feeling of deep and earnest sorrow to behold so much human ingenuity and talent leagued to play a cheat upon mankind. If we could follow the unhappy artist back to his garret, where only the low picture-trader stands between him and the wolf Hunger prowling about his door, and could mark the agony of shame with which he is called upon to desecrate the works of the high-priests of his Art, we should, in sober truth, light upon one of the most appalling pictures of human agony which this metropolis of two millions can offer. For, be it remembered, that little of the ill-gotten wealth accruing from this trade in forgery falls to the lot of the miserable wretch who forges; no, the gain comes in large lumps to the middleman, the trader; who, without a sense of

the refinement of Art, with no feeling beyond that concerned in his banking account, preys upon starving talent for his living." However discreditable such a statement as this is, it is nevertheless but too true; yet the starving artist is not always, nor even generally, the only *particeps criminis*: we have known those who could not plead such excuse practise the imposition; and again, we have known instances where not even indigence and destitution could tempt an honourable mind to engage, secretly, in the work of fraud. But a few months back, the wife of an artist called at our office, to ask advice about a picture he desired to get into the exhibition of the Royal Academy. In the course of conversation we learned, that though in the extreme of poverty, the few articles of furniture they possessed being then in execution for two or three weeks' rent of their lodgings, the husband had indignantly refused a proposal to enter a picture *manufactory* (the name of which we are acquainted with), at a tolerably comfortable annual salary, to copy Stanfield, and other marine painters. Whatever effort we, in common with other journalists, may make to put a stop to such practices as we have denounced, we have a right to call upon the artists to co-operate with us. It is more their affair than ours, and there are many ways in which their assistance might be available, especially in the detection of counterfeits, if they would only take the trouble to lend their aid. The writer of the article in the *Globe* offers a good suggestion, whereby the system might be materially checked for the future, namely, to establish a rule, that every living artist, when disposing of a picture, issue with it a certificate of its genuineness; to which we would add a remark of our own, that this certificate should, in all cases where the work might chance to be re-sold, be demanded by the purchaser and handed over to him ere the sale be completed. It is in some such plan as this where the assistance of the artist would be most effectual in checking fraudulent transactions.

EXHIBITION OF PICTURES AT THE PANTHEON.—It is tolerably well known that this establishment possesses some large and well-lighted rooms, expressly built for the exhibition of pictures; indeed, they have for some time past been devoted to this object; but, with very few exceptions, the works hung there have not been of a class to attract much notice. A project has been submitted to us for opening the galleries as "a perpetual Auxiliary Exhibition for the sale of works of living artists which have been previously exhibited," and, we presume, also of such as have not hitherto been placed before the public. It is intended to keep it open through the year, so that persons visiting London at any season may have the opportunity of inspecting and purchasing pictures at all times. The director and manager of the gallery is Mr. J. F. Gilbert, himself an artist, who was, and we believe is now, one of the committee of the Hyde Park Free Exhibition. Presuming, and there is no reason to doubt the contrary, that everything connected with the management, will be conducted in perfect good faith, we think the project entitled to the consideration and support of the artists and the public. The locality is a good one, the rooms are excellently adapted for the purpose, and, moreover, some such scheme has long been wished for by a large number of the artistic body. Any application, respecting the plan and regulations, may be addressed to Mr. Gilbert.

PANORAMIC EXHIBITION.—We have been informed that a new panoramic and dioramic exhibition, on a very extensive scale, will ere long be opened at the Parthenon Gallery in Regent Street, in which the best scenic art will be employed.

PHOTOGRAPHY.—M. Blanquet Everard has suggested a great improvement in photography in using plates of glass for the pictures instead of paper. This process consists in beating well together a weak solution of iodide of potassium and the white of eggs. When, after standing, the mixture has become perfectly clear, it is to be spread very uniformly over a well-cleaned plate of glass, and allowed to dry. When dry, the surface should be perfectly free from cracks and very uniform. Upon this is spread the

ordinary calotype material, the aceto-nitrate of silver, and then the gallic acid; and the picture being obtained in the camera, is developed by the gallo-nitrate of silver. Indeed, every step of the process, after the albuminous covering is obtained, is the same as that observed in the calotype.

MANUFACTURERS' PATTERN-BOOKS.—If evidence were wanting of the enterprise and taste of many of our large manufacturing firms, it would be abundantly supplied by the inspection of some of the books of patterns which are occasionally submitted to us. We have now one lying on our table, from the house of Messrs. Jackson & Sons, of Rathbone Place, manufacturers of ornamental works in papier-mâché, which, for variety and profuseness of design, and for delicate execution in lithography, cannot be surpassed. It contains nearly seventy large pages of designs of every conceivable style of pattern, and for every purpose to which this material can be applied, many of them showing the utmost elaboration of detail, and the purest taste in decoration. The cost of producing such a book must have been very large, and could only be sustained by a firm of most extensive business.

MR. LINTON'S LIST OF COLOURS.—Two or three errata have inadvertently been made in this notice, which appeared in our September number, from the lines being misplaced. In a line with "Strontian yellow," the notice in the third column belonging to that colour is placed against "Cadmium yellow," the former thus becoming mixed up with the earthy oxides below. Again, "Indian red" is made a "Bisulphuret of mercury" by the printer's lead being placed higher, and the type removed to bring it on the same line; and, lastly, the account of "Ultramarine" should not have been divided by the line.

INDUSTRIAL HOME FOR INDIGENT GENTLEWOMEN.—It has been a fashion of late to find a meaning, political or satirical as the case might be, in every nursery legend; and very entertaining papers, aye, and whole books, have been written to prove that the rhymes which our great-great-grandmothers sang to those venerable ancestors of ours, their babies, were redolent of half-hidden treason, or biting satire. Now we think it might be no difficult task to trace in the purse of Fortunatus, a shadowing forth of the ever-ready benevolence of the present day: it seems impossible to exhaust the readiness with which every successive appeal is answered, or the activity of mind which seizes on fresh channels for the ready bounty. We feel it a pleasant duty to bring another new charity before our readers, springing from the kindly feeling of one individual, but to be upheld we hope by hundreds, and to benefit hundreds more. Some time since, the individual to whom we have alluded, was deeply interested by a tale by (we write it with a proud and thankful heart) Mrs. S. C. Hall, entitled the "Governess." The impression was strong and durable, and the sympathy excited for governesses soon gave rise to a new thought—"If such is the life of a teacher, what becomes of destitute ladies who have no such resource? Supposing there are four sisters left equally without provision, all cannot be governesses; what becomes of those who cannot teach, and are to beg ashamed?" This idea dwelt on, and digested and matured, has given rise to the establishment of a Home for the widows and daughters of professional men, where they are to have board and lodging at the easy rate of 7s. 6d. per week, and employment furnished them to enable them to meet that charge—their earnings over and above that sum being, of course, their own. The plan has our hearty good wishes, as every plan for the amelioration of distress in any shape would have, but especially distress befalling those so unfitted by all previous training for struggling with the world. We find a spacious old fashioned house in Harpur Street, Red Lion Square, has been obtained, and partially furnished to make a beginning; a lady superintendent appointed, and a committee formed; and we will only add one hope, that amongst our many readers, some will be found to go and see the Home, hear the particulars from those who can explain all the details, and give this modest attempt at usefulness a helping hand.

C. L.

REVIEWS.

THE ANATOMY OF THE EXTERNAL FORMS OF MAN. By Dr. J. FAU. Edited, with Additions, by ROBERT KNOX, M.D., &c. &c. Published by BAILLIÈRE.

Extremely rare are the qualifications necessary to give to the world of Art a really practical compendium of anatomy. We have continually found in anatomical prelections addressed to painters, that the teacher has been somewhat too much of the anatomist, much too little of the painter,—the poetic element of both professions being wanting. We can signalise the most splendid results in modern art of the converse which painters have held with the remains of their fellow mortals; but these men have generally laboured for themselves—the lessons of their teachers have never been the end—they have only been the beginning of their anatomical studies. The purely surgical lecturer, although he illustrate from the living nude, is nevertheless more impressed with the inanimate structure before him than the spirit of the life we seek in art, and this impression he generally conveys to his audience. Our own school of medicine has put forth nothing, as a simply artistic anatomical treatise. Much may be gathered from the works of John and Charles Bell; indeed, the former, in his quarto on the Bones and Muscles, dwells so much upon the beautiful, that his work is virtually rejected by the medical profession. With *vi pueri* they have nothing to do—and having been written for this profession, the book is unsuited as a physiological manual for the painter. The artists of the Continent have addressed themselves much to the works of Albinus, whose feeling was exclusively surgical—the objection urged against him by Camper, who laboured with a feeling for art. But inasmuch as the drawings of Albinus are entirely intended for medical education, it is absurd to complain of their want of adaptation to the purposes of the artist. Those artists who may have had the advantage of studying in any of the Continental schools, must have satisfied themselves of the fallacies propounded by Charles Bell, more particularly in relation to the studies of Raffaele, Michael Angelo, and Leonardo. The "Anatomie du Gladiateur Combattant," by Jean-Gabriel Salvage, is a work in which osteology and myology may be studied to great advantage. How resolutely soever teachers may, in their love of their profession, insist upon the value of a knowledge of the deeper human organisation, this is an acquisition of no use to the artist; he paints the heart, it is true, but in the colours of the face divine. It must not however be forgotten, that there are certain deep muscles which qualify superficial form, a fact which is too frequently overlooked both in study and practice. The form of the fore-arm depends much upon the powers of the great flexors and extensors of the fingers; and in other parts of the body the close observer will see, when the figure is in action, effects which are not to be accounted for by the simple office of the superficial muscle. In ordinary poses, the muscles with which we have to do, are the *musculus magnus*, *pectoralis*, *rectus ventris*, *magni obliqui*, *magni dorsalis*, *rhomboides*, *magni et medii glutei* in the trunk, the *sternocleidomastoideus* and *trapezii* in the neck and shoulders, the *deltoides*, *biceps*, *triceps*, *longus supinator* in the arm, and the *rectus anterior internus et externus femoralis*, *biceps*, the *gemelli* and *tendo Achilles* in the leg.

With all our modern means and appliances, we must still look back to the wonderful excellence of our masters in the Rhodian art—the more astonishing, when we remember that the Greeks did not dissect; at least there is, we believe, no direct evidence that they did. Writers who have touched upon this subject are divided in their assumptions. Kurt Sprengel (*Gesh. der Arzneikunde*) supposes the first attempts at dissection to be indicated in Aristotle, and assumes as a certainty that it was practised under the Ptolemies. According to others, even Galen himself dissected only apes and dogs, and theorised analogically on the human economy. On the other hand, Hirt attempts to prove a synchronic relation between the development of dissection and the plastic art. The statues of the Parthenon exhibit the most perfect truth; but all that is of genuine Greek creation, participates in this perfection. In many of the works of the Alexandrine period art became ostentatious, and the Roman marmorari, attached only to generalities, lost the warmth and reality arising from the direct study of nature. Without a knowledge of anatomy on the part of the Greek artist, the best antique remains are singularly perfect; and hence it is argued by some writers, that to them this knowledge had been useless. But who will say

that with a scientific knowledge of the human structure, they would not have arrived with a more rapid assurance at those splendid results. Their school was the gymnasium—and there, gifted with an apprehension which no other people has yet shown, they attained to a power of describing vivacious action with a spirit that has never yet been equalled. It occurs every day in the course of study and practice, that the model supplying the subject falls, while resting from the pose, into attitudes far surpassing in their natural ease the studied position. This we say occurs daily in every school and atelier, and it is this genuine and unconstrained nature that the Greeks have caught with such infinite felicity in all their moving figures. The structure of the Hercules, however, is erroneous; that is, the figure does not describe the attributes of the character; its muscular volume is altogether inconsistent with swiftness and activity, and not in such proportions favourable to the exertion of strength.

Dr. Fau's work, as translated by Dr. Knox, is the best anatomical work we have yet seen offered to the English student of artistic anatomy. It consists of a portfolio of twenty-eight well-drawn lithographic plates, accompanied by a volume of descriptive matter, reduced to the form of a series of simple and abundantly explicit lectures, a few of the immediate subjects of which are, "Of the entire skeleton, and the various parts composing it;" "Of the principal articulations;" "Forms produced by the skeleton;" "External forms of the head;" "External forms of the torso, or trunk;" "Exterior forms of the thoracic extremities or arms;" "Exterior forms of the lower limbs or extremities," &c. &c. The last of the series of Dr. Fau's plates is a drawing representing an ideal dissection, of the principal figure of the Laocoon group, the remarks on which, offered in the text, are extremely interesting: "The general expression of the Laocoon is that of mental and physical agony; he raises his eyes to heaven as if to supplicate the gods. This expression of pain or suffering pervades the entire frame; he utters no cries—no lamentations. His vast forehead shows the power of a superior man; the largely modelled superciliary protuberances may also be taken as an index of this quality. The lower extremities are magnificently sculptured; you feel that in despite of their gigantic and convulsive efforts they are about to be fixed to the soil. The convulsive efforts of the left arm cannot be described in words; unhappily the right arm is soft and heavy: there is something theatrical about it: the fire of genius which inspired the original sculptor was wanting in the restorer of the lost parts. The master or masters who formed the Laocoon have neglected nothing which might express suffering; the expression of horrible agony extends even to the reproductive organs. In the face, with the exception of the orbicularis muscles of the eyelids and the zygomatic, the beard conceals much of the physiognomy; and, moreover, muscular action is not so strictly represented on the surface of the face as in the other parts of the body; we refer, therefore, to what we have said on the modifications which the face undergoes on the influence of motion. Observe, on the other hand, the contractions of the left sterno-mastoid, and the depth of the supra-clavicular and supra-sternal fossæ. The elevated shoulder draws with it the collar-bone; the deltoid displays its aponeurotic depressions and various fasciculi; the intermuscular space, dividing it from the powerful pectoral, is quite distinct; the contracted fibres of these muscles deepen the sternal groove," &c. An appendix is added by the editor, in which the merits of the Elgin Marbles are briefly pointed out; also descriptions given of other relics in the Museum and the Royal Academy, thus directing the attention of the British student to a source of wealth readily within reach. The text is accompanied by additional plates, as of the Theseus and the Ilyssus, the Venus of the Townley collection, and the busts of the young and elder Hercules; and the text is extended to a notice of much that is interesting and profitable to the student. The recent exhibitions at Westminster showed, in the greater number of the productions that were contributed, an extreme degree of infirmity in those figures which afford opportunity for the display of some anatomical acquirement. This was conspicuous even in the works of painters who, in small pictures, have numbered years of success. Without a knowledge of superficial anatomy all is uncertain; weariness, or the slightest movement of the model, confuses the student, inasmuch that his only resource is to follow the figure in its relaxation; he cannot with certainty put the muscle in its place from any knowledge of its exact position. The editor of the work before us believes that the vitiation of the artistic study dates from at least the time of Michel Angelo; that is to say, that at

that time the anatomy of the medical schools began to supersede the entire reliance upon living nature which had previously prevailed. "But the artist," he continues, "ought also to be acquainted with the anatomy of the dead, at least to a certain extent; how to combine these with each other; how to avail himself of all legitimate resources of his art; how to eschew the errors of those who tell him, or who have told him, that on the one hand he may have ready-made physiognomies suited to all occasions, and on the other, that from the lifeless and dissected corpse he may sketch with safety; copy dead forms for living ones—forms which nature never intended should be seen—forms, in the high tide of beauty and youth, most carefully concealed from human sight. To enable the artist, in fact, to escape from a misdirection which is sure deeply and fatally to influence all his future aims and works, is the object of the concluding chapters of the work."

Thus is the work addressed solely to the artist, in language—especially that of Dr. Knox—sympathetic with the feelings of the aspirant. The system is easy, comprehensive, and thus accompanied by letter-press, must convey to the student all necessary knowledge. Plates, without letter-press, are as the dissected structure without a lecturer. The written expositions which accompany this series are simple essays, conveying most valuable information in a most profitable form.

RAMBLES IN NEW SOUTH WALES: With Sketches of Men and Manners; and some Hints to Emigrants. By JOSEPH PHIPPS TOWNSEND. CHAPMAN & HALL, London.

The writer of this interesting volume has some claims on the increasing fraternity of literature. He is the nephew of Mr. Jesse, to whom the book is dedicated; and facts and incidents he strings together with more tact than could be expected from a young author. He hopes for an indulgence on account of his inexperience, which, we assure him, is by no means necessary. Mr. Townsend may well call it a "startling fact," that in two years, ten thousand persons left the colony; but he asserts his belief, that many persons would have remained if they could have obtained land, the last thing we should have supposed it difficult to procure. There is a good deal of information given, that will be very useful to emigrants, as well as to people before they decide upon a step, which may well excite the astonishment of involuntary exiles. The resources of new countries are generally exaggerated, and very few accounts from actual residents can be relied upon. There are interests to serve, and principles to advocate, and articles to sell; some latent cause or another operating upon the mind of the letter-writer or the journalist, which even colours facts, so as to render them opposite to realities. But Mr. Townsend has returned to his home, not as a disappointed man, but an intelligent traveller; and has given us a readable, pleasant volume, which greatly increases our knowledge of New South Wales, and our thankfulness that we are not obliged to wander forth from our own country.

A HISTORY OF ARCHITECTURE. By EDWARD A. FREEMAN, M.A. Published by JOSEPH MASTERS, Aldersgate Street, and 78, New Bond Street.

This is a comprehensive but brief review of architecture, from the Pelagian period down to the un-Gothic predilections of Wren. The intellectual history of architecture commences truly with the Greeks, but who can refrain from inquiry into the origin, character, and uses of the mysterious structures of Egypt and India? As a philosophical review, the book before us rejects all details and technicalities; indeed, had these been embraced, the work might have been extended into a treatise of twenty volumes. The purpose of the author is an analysis of the essence of architecture—an exposition of principles—of political and religious symbolism; thus considering structures only according to the spirit of their entire composition. In comparing architectural study with antiquarian research, the author sends the latter many frigid degrees down the scale, to a place scarcely short of zero, but we humbly submit that in the veritable antiquarian there cannot be so much veneration for the beautiful as in the pure architect. The merit of antiquarian research is dissolved, but yet Wren's attempts at Gothic are wretched for want of that very antiquarian knowledge which had rendered them perfect: "in a word, Sir Christopher was no antiquarian, but he was a very great architect, and had not his taste been warped by the infection of the day, he might have been the restorer of Gothic architecture instead of the dealer of its deathblow." The work is, however, a valuable addition to

architectural history in a much desiderated form—that of a series of popular untechnical essays, and the more likely to win the public confidence as professing acknowledgment of such authorities as Hope, Petit, Dr. Whewell, and others who have treated earnestly of the science. For ourselves, regardless, perhaps, sometimes of the mass, we think technically, and speak in like manner, even when approaching the philosophy of science. We could have wished to devote some space to the consideration of this work, but this is denied us from the pressure of matter; its spirit may, however, be understood from the heads of some of the chapters, as Pelagian Architecture, Early Column Architecture, Indian Architecture, Egyptian Architecture; then follow the Greek, with its deductions, and all other styles down to our own times.

THE VARIOUS MODES OF ANASTATIC PRINTING AND PAPHYROGRAPHY. Published by DAVID BOGUE, London.

The various presumed utilities of Anastatic printing were first introduced in this journal some years ago, before, we believe, it had attracted serious attention from any other journal. We have from time to time observed its progress, but the result has been disappointment, because it has failed to realise its promise of extended application. Having witnessed the process on its first being patented* in this country, we ventured to express a hope that it would be effective in the reproduction of old letterpress and prints, for the reprinting of works at once curious and useful, and that it would afford a cheap and available method of stereotyping. But the first great difficulty has never been obviated—that of taking a fac-simile of a page of letterpress of an age sufficient to have indurated the ink with which it had been printed; for when the matter to be transferred has been printed only a few weeks or months, so that the ink still retains a portion of its oily ingredients, the process is a very simple one; but when the impression has been made several years, and the ink has become thoroughly dry, the operation is more complicated. Such is the admission in the little volume before us, and this is precisely the reverse of what is wanted; reprints of works only a month or two old are not required, and hence the term "anastatic," or resurrectional (from *ἀνάστασις*), is at least premature; and that it will ever be truly applicable may be reasonably doubted, considering that, according to the observations before us, "the complicated chemical process necessary to revive ancient letterpress and to transfer it from the paper to a plate of zinc is uncertain in all its results, and sometimes destroys an original without producing a copy." Under such circumstances, no possessor of any rare impression would ever submit it to the risk of injury or destruction. The little work which recalls the subject to notice presents a few examples, in which are given the original and the anastatic copy. The frontispiece is the head of a lion, apparently from a woodcut or a drawing; an impression from a small copper-plate is then imitated with perfect success, as also other impressions from wood and lithographic surfaces; but we fear that if nothing beyond this has been accomplished, the discovery will only take a place among scientific curiosities.

THE BOG-WOOD CUTTER. Engraved by C. G. LEWIS, from the Picture by E. LANDSEER, R.A. Published by H. GRAVES & Co., London.

The well-known gallery of Mr. Wells, of Redleaf, contains the original picture from which this engraving is taken; it is a small and early work of the artist's, yet in style and execution possesses many of those admirable qualities which have gained for Mr. Landseer his universal popularity. It represents a scene in the Highlands—a moor, backed by a lofty range of mountains; in the foreground stands a shaggy pony, harnessed, with his hoofs imbedded in the soft heather; on his back are bundles of the same, surmounted by some thick logs of wood, such as are commonly found, black as ink, in many of the moorlands of the United Kingdom. A young girl is seated by the horse, which she is feeding with a bunch of fodder, and on the opposite side of the animal, leaning against a large trunk of some ancient forest-tree, is the ordinary attendant, a dog. At some little distance from this group, a sturdy Highlander, with uplifted axe, is busily at work on a huge log. The composition of this subject is very effective, there is not a part without some interest, and the arrangement of the *chiar' oscuro* tells remarkably in the engraving, every portion of the work being subdued in tone, except the horse, which comes out

* Our attention was called to the discovery by the late Mr. Joseph Woods, of Barge Yard Chambers, Bucklersbury, where an anastatic press had been established. Mr. Woods had, we believe, an interest in the patent.

in strong, but not forced, relief, from the surrounding objects. Mr. Lewis may fairly class this print with the best of the many he has engraved after Landseer.

THE REAPER. Engraved by H. T. RYALL, from the Picture by E. LANDSEER, R.A. Published by H. GRAVES & Co., London.

The original picture of "The Reaper," here engraved, like that we have just noticed, is also in the collection of Mr. Wells, of Redleaf. A girl, unbonneted, with her hair loosely tied, is resting her elbows on a stone wall, which conceals all the lower part of her person; on her back is a sheaf of barley, the produce, most likely, of her evening's gleanings, when the labour of the day is done. Her sickle lies on the top of the wall, where also sits the dog, whose attitude is that of one on the look-out. His companion is evidently engaged with her own thoughts, the expression of the face, which is seen in profile, being that of abstracted musing. The work is very nicely engraved in the mixed style of mezzotinto and stipple, and will, doubtless, prove a popular one of its class.

PORTRAIT OF JOSEPH LOCKE, ESQ., M.P. Painted by F. GRANT, A.R.A. Engraved by H. COUSINS. Published by H. GRAVES & Co., London.

This engraving forms an excellent companion to that of another great civil engineer, the late Mr. G. Stephenson, which we received two or three months since. Independent of the interest that science has attached to the name of Mr. Locke, his portrait, as here seen, is worthy of especial notice, as a work of Art. The expression of the face is highly intellectual, the attitude of the figure perfectly easy and natural, while the accessories of the subject, or more properly speaking, the landscape portion is in true harmony. The engraving has been executed for the members of the "College of Civil Engineers," and is a fine example of Mr. H. Cousins's mezzotinto work.

THE BURNING OF THE OCEAN MONARCH. Painted by MOREL FATIO. Engraved by J. OUTHWAITE.

The occurrence of this deplorable catastrophe is of too recent date to be lost to the recollection. M. Fatio is a French artist, and the valuable assistance afforded by a large French steamer on the occasion, has, we doubt not, drawn the attention of the painter to the subject, of which, judging from the engraving, he has made a most effective picture. The only portion of the ill-fated ship that is seen is the forepart, to which the crew and passengers are clinging by hundreds in every direction, to escape the flames, burning fast and furiously from about midship to stern. At some little distance, with her larboard broadside to the head of the "Monarch," is the French steamer, whose boats are busily engaged on all sides in rescuing the crew and passengers from destruction; while, in the middle distance, between the two larger vessels, the little yacht is bearing up to lend a hand; and still farther off, the English steamer, that subsequently assisted, is seen. All the real facts connected with the calamitous event are thus brought forward, and in a way that tells most effectively in the composition; there is, indeed, a truthfulness about it quite appalling. It is excellently engraved in a mixed style, line and stipple we should think, by Mr. Outhwaite, an Englishman resident in Paris.

THE DRAWING-ROOM SCRAP BOOK. Edited by CHARLES MACKAY, LL.D. Published by PETER JACKSON, late FISHER'S, London.

The motto on the title-page, from the pen of the first editor of this favourite Gift-book, took us back—now, long years past—to when Letitia Landon gave utterance to some of her highest aspirations—

"Gifts are the beads of Memory's rosary,
Wherein she reckons kind remembrances
Of friends and old affections."

So run her lines; and surely the memories "of friends and old affections" crowd around us, when the date of 1850 reminds us that the century we remember young is growing old; but it is not to moralise upon a sad theme that we take up our pen to perform a task which, like all others, is of a mingled nature. If we mourn for those gifted beings who have passed into a more exalted state of existence, our sorrow is subdued by calling to mind how we enjoyed their society; and how much we owe them of the highest and best pleasure; though the natural voice is silent to us here for ever, their spirit breathes in their works, and those have become to us as household gods, to be cherished until our space of time mingles with eternity.

Neither is "Fisher's Drawing-room Scrap Book," Fisher's—the name of a new publisher is on the title-page, and a new editor has ascended the throne which Mrs. Norton so long and so gracefully filled. Dr. Mackay has won and worn his laurels too long, to have his claim to them questioned; if it had not been so, he might appeal to the brilliant book before us to prove his title to the poet's crown; and while we agree with him in the opinion that his task was one of extreme difficulty, "when he reflected upon the elegance and purity of its first, and the passionate eloquence and deep feeling of its last, editress," we are the more bound to congratulate him on the triumph he has achieved. We remember poor L.E.L.'s lamentations over the impossibility of "writing to plates which all the world had seen;" and in this instance the difficulty has not decreased. The *rechauffe* of engravings yielding an abundant variety to the reader, must have been all the more perplexing to the Poet; if he has been fettered, he certainly has concealed his fetters most effectually, treating the subjects as though they were of his choice, not of his necessity.

The volume contains a number of engravings which, though not remarkable as works of Art, will grace the drawing-room table. Mr. Parris, whose fine taste as a decorator we have so frequently mentioned, is here seen according to his first calling; and there are two portraits—one of Lamartine, another of the President of the French Republic, which, as novelties, will create much interest.

TOIL AND TRIAL. By Mrs. NEWTON CROSLAND, (late CAMILLA TOULMIN.) Published by ARTHUR HALL, VIRTUE & Co., London.

Earnest, sincere, and careful in all she did, and does, Mrs. Crosland has produced a sketch of the "Toil and Trial" of a particular phase of London life—which none can read without interest, and it is to be hoped, few without improvement. We have the principle of this story over and over again—it pleads the cause of the *London Shopman*; it craves for him those sag-ends of morning and evening toil, which there can be no reason to refuse, that he may have that rest so necessary to mind and body, to the exercise of healthful industry and honest labour. The story is admirable as far as it goes, it shows the employer and the employed, but it does not show the positive cruelty of those who encourage the late closing of our shops by making their purchases at a late hour: as long as ladies permit their dependants to "shop of an evening," so long do they encourage a system of slavery quite as severe as that from which they would emancipate their "darker brethren." The little volume contains two other tales, each written with a view to ameliorate suffering, and create a habit of "thinking upon what we do." Of these, "A Story of the West-end" is the best, and the artistic tact with which the author has managed to arrest attention, while conveying the knowledge we sadly lack, as to how the various classes of society hang together, and where labour could be lessened without doing injustice to the employer, proves how much this excellent lady's mind is matured, and how anxious she is to devote her talents to the actual good of society. We would entreat our fair readers to weigh well the suffering caused by thoughtlessness; if they combined and agreed not to patronise any shops not closed at an early hour, they would cause many a heart to throb with joy, and give repose to many an aching head. We could dilate upon this subject and fill page after page with the *realities*, which Mrs. Newton Crosland has so bravely and faithfully embodied in her fiction; but we have surely said enough to induce a perusal of the volume, simply throwing out a suggestion to the author, that she publish as an *addenda* to the second edition of "Toil and Trial," the facts, which the Secretary of the Early Closing and Distressed Needlewomen's Society could so abundantly furnish, and they would prove, what, though frequently quoted, is not sufficiently thought upon, "that Truth is strange, stranger than Fiction."

BEAUTIES OF THE ROSE. Part I. By H. CURTIS. Published by GROOMBRIDGE & SON, London; and J. LAVARS, Bristol.

This work is an emanation from the provincial press, and must be regarded, not so much for its pictorial beauties, as for the valuable information it gives to the amateur-grower of these gems of our English gardens. The various kinds of flowers, the best method of cultivating them, and the most productive soils for ensuring good growth, are clearly and concisely stated; the coloured illustrations are faithful portraits, such as are suited to a work of this description.